

THE COLLEGE OF

William and Mary

Undergraduate Program

IN VIRGINIA

GENERAL STATEMENT OF POLICY

Within the limits of its facilities and its obligations as a State university, the College of William and Mary opens the possibility of admission to all qualified students without regard to sex, race, color, age, religion, or national origin; the facilities and services of the College are open to all enrolled students on the same basis, and all standards and policies of the institution, including those governing employment, are applied accordingly.

Note: This catalog provides announcements for the 1974–75 academic year. It is current until August, 1975.

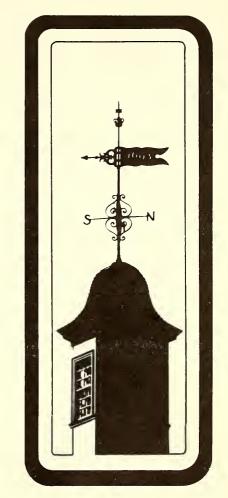
Catalogs are issued for other College programs as follows:

School of Business Administration School of Education Graduate Studies in Arts and Sciences, and Marine Science Marshall-Wythe School of Law Summer Sessions

> Bulletin of The College of William and Mary—Undergraduate Catalog Issue Vol. 68, No. 8
>
> August, 1974

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Subject to the conditions specified by Chapter 4.5 of Title 23 of the State Code of Virginia and available space, citizens of Virginia who have reached the age of 65 may attend the College of William and Mary as full-time students for one-half the normal in-state tuition. If they attend on a non-credit basis or if they attend as part-time students, they may attend without payment of tuition. Full details are available from the Dean of Admissions.



THE COLLEGE OF

William and Mary IN VIRGINIA

BULLETIN
THE UNDERGRADUATE CATALOG

ANNOUNCEMENTS FOR THE TWO HUNDRED AND EIGHTY-SECOND YEAR

WILLIAMSBURG, VIRGINIA

CORRESPONDENCE DIRECTORY

To facilitate prompt attention, inquiries should be directed to the following:

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ADMISSIONS

Robert P. Hunt, Dean of Admissions

BUSINESS MATTERS, FEES AND EXPENSES

William J. Carter, Vice President for Business Affairs

DEVELOPMENT, ANNUITIES AND GIFTS

Warren Heemann, Vice President for College Development

ALUMNI AFFAIRS

Gordon C. Vliet, Executive Vice President, Society of the Alumni

EMPLOYMENT OF STUDENTS, STUDENT LOANS, SCHOLARSHIPS

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GRADUATE STUDIES

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of Business Administration

Robert C. Jones, Associate Dean of School of Education

James P. Whyte, Jr., Dean of Marshall-Wythe School of Law

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Dudley M. Jensen, Registrar

SPECIAL PROGRAMS

Carson H. Barnes, Jr., Director

SUMMER SESSION AND EVENING CLASSES

Paul N. Clem. Director

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COLLEGE CALENDAR

1974-75

1974 First Semester

September 7-11 Orientation Period (Saturday-Wednesday)

September 11 Registration of Graduate Students

September 12 Registration of Freshman and Sophomore Students (Thursday)

September 13 Beginning of Classes: 8 a.m. (Friday)

September 13-14 Registration Validation (Friday-Saturday 8-12 noon)
September 27 Last Day for Course or Section Changes: 5 p.m. (Friday)

October 19 Homecoming (Saturday)

October 26 Mid-Semester Reports (100-200 Courses) filed with Registrar: 12

noon (Saturday)

*November 27 Beginning of Thanksgiving Holiday: 1 p.m. (Wednesday)

December 2 End of Thanksgiving Holiday: 8 a.m. (Monday)

December 20 End of Classes: 5 p.m. (Friday)

*December 20 Beginning of Christmas Recess: 5 p.m. (Friday)

1975

January 3 End of Christmas Recess: 8 a.m. (Friday)
January 3-4 Reading Period (Friday-Saturday)

January 6–17 Semester Examinations (Monday-Friday)

Second Semester

January 24 Registration of all Students (Friday)
January 27 Beginning of Classes: 8 a.m. (Monday)

February 8 Charter Day: 11 a.m. (Saturday)

February 10 Last Day for Course or Section Changes: 5 p.m. (Monday)

March 15 Mid-Semester Reports (100-200 Courses) filed with Registrar: (12

noon Saturday)

*March 21 Beginning of Spring Recess: 5 p.m. (Friday)

April 1 End of Spring Recess: 8 a.m. (Tuesday)
April 18 Spring Convocation: 11 a.m. (Friday)

End of Classes: 5 p.m. (Friday) May 9

Reading Period (Monday-Wednesday) May 12-14

Semester Examinations (Thursday-Tuesday) May 15-27

Commencement Day (Sunday) June 1

> *College residence halls are not open for occupancy during these holiday and recess periods.

SUMMER SESSION

Beginning of Summer Session—First Term (Monday) June 16

July 18 End of First Term (Friday)

July 21 Beginning of Second Term (Monday)

End of Second Term (Friday) August 22

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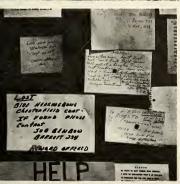




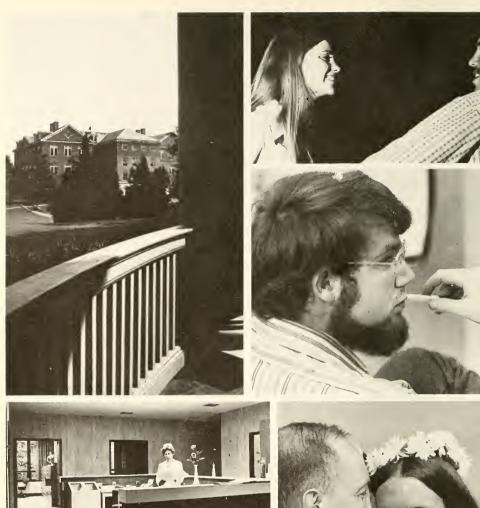






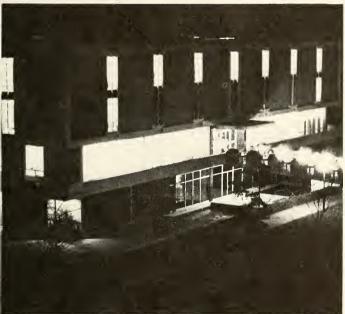




















I. THE COLLEGE

OBJECTIVES

Founded in 1693 as the second institution of higher education in the country, the College of William and Mary in Virginia is today a small, residential, full-time, coeducational university. It is a state university, drawing seventy percent of its almost four thousand undergraduate students from the Commonwealth of Virginia. It is also national and international in character and contribution, enrolling students from

throughout the nation, many foreign countries, and varied backgrounds.

William and Mary is primarily an undergraduate institution, providing a liberal education that is rounded and thorough, preparing its students to live and to make a living. All students gain a broad base of understanding and knowledge in arts and sciences in their freshman and sophomore years. In their junior and senior years, they may pursue work toward the bachelor of arts or bachelor of science degrees in a full range of concentrations in arts and sciences or education, or they may enter a program of study in the School of Business Administration leading to the Bachelor of Business Administration degree.

The College also provides opportunity for its students to pursue graduate work compatible with the liberal undergraduate program. Advanced studies are offered in several fields in the arts and sciences leading to the master of arts and master of science degrees, and in history and physics leading to the Ph.D. degree. In the professional schools, the J.D. degree is offered by the Marshall-Wythe School of Law; the Master of Business Administration degree by the School of Business Administration and the Master of Arts in Education degree, the Master of Education degree, the Certificate of Advanced Study and the Doctor of Education degree by the School of Education. The School of Marine Science offers programs leading to the Master of Arts

and Ph.D. degrees.

The College's commitment in all programs to liberal education is the source of institutional coherence. William and Mary emphasizes, in its undergraduate, graduate and professional programs, the development of the student as a whole individual. The criterion of excellence in teaching and learning, in class and out of class, is at the heart of the educational process. With such objectives, and with a selective and limited enrollment, the College strives to provide its students with a quality education, and to make a significant contribution to the Commonwealth of Virginia and to the nation through the development of independent, responsive and responsible individuals. Faculty, students, and administrators work closely together to create this educational environment, under the leadership of the Board of Visitors and with the support of the Board of the Society of the Alumni.

Continuing exploration of and participation in innovative and experimental approaches to teaching and learning are a significant aspect of the College's forward movement, and emphasis on research and high quality graduate programs contrib-

utes strongly to the development of excellence at William and Mary.

The College offers a wide range of courses, seminars, and programs to adults, both for credit and non-credit, in the evening and during the day, at its Williamsburg campus, at the Virginia Associated Research Campus in Newport News and at its branch college, Christopher Newport College, also in Newport News, during the regular academic year and through the summer. This contribution to the educational enrichment of the citizens of Virginia throughout their careers is provided by the professional schools of education, business, and law, and by the faculty of arts and sciences. It is in keeping with the College's commitment, as a State institution, to community service and enhanced educational opportunities for the adult citizens of the State of Virginia, and for its more than 25,000 known alumni.

William and Mary is a college community, small enough to provide for relationships that allow true teaching and learning, large enough to have the resources to achieve excellence. An important aspect of this community is the location of the College in the beautiful and historic city of Williamsburg, where it constitutes an integral

OBJECTIVES

part of the restoration of Colonial Williamsburg. The partnership of the College, the City, and the Restoration, and the educational, cultural and recreational opportunities afforded to all students at the College by this partnership add to the quality of life and the quality of education at William and Mary.

HISTORY

The College of William and Mary was chartered in 1693 by King William III and Queen Mary II and stands today as the second oldest institution of higher learning in America. Only Harvard is older, and the antecedents of William and Mary pre-date that institution. In 1619, the colonists of Virginia attempted to erect a college at Henrico, Virginia, but it is reported that the Indian Massacre of 1622 cut that effort short.

The College of William and Mary has endured the ravages of two wars—the War of Independence and the War Between the States—and has played a substantial role in each. The Sir Christopher Wren Building, the oldest academic structure in America in continuous classroom use, was constructed in 1695. Partially destroyed by fire three times, occupied by invaders twice, it stands as a lasting hallmark to the enduring

spirit of William and Mary.

In the Wren Building, several of America's greatest early leaders studied. Three American Presidents were students at William and Mary during its "Golden Era"—Thomas Jefferson, James Monroe and John Tyler. George Washington received his surveyor's license at William and Mary, returning after his Presidency to serve as its Chancellor. The roll call of patriots who studied at William and Mary is long and distinguished: 16 members of the Continental Congress, four signers of the Declaration of Independence, four justices of the Supreme Court of the United States, including John Marshall, more than 30 United States Senators, over 60 members of the House of Representatives, eight members of the Presidential Cabinets, eighteen ministers to foreign countries. 27 governors of 10 states, and many other notables.

Perhaps its most notable graduate, Jefferson, while serving as Governor of Virginia and a member of the Board of Visitors, effected widespread changes at the College in 1779. He added chairs of modern languages and of municipal and constitutional law—both firsts in America—as well as schools of anatomy and medicine, while abolishing the grammar and divinity schools. With Jefferson's reorganization, the College adopted America's first elective system of study and introduced the Honor System, still a trademark of the College today. In 1776, William and Mary had established Phi Beta Kappa, the nation's first intercollegiate fraternity. And in 1781 it became America's first true university, uniting the faculties of law, medicine, and the arts.

In the first half of the nineteenth century the College prospered, and during the period from 1836–46, it attained the highest enrollment in its history until 1889. Instruction at the College was suspended during the Civil War, and its buildings were occupied successively by both the Confederate and Union armies. In 1862, the Wren Building was partially burned by Union troops—the third such destruction by fire, the other burnings having occurred in 1705 and 1859. After the war the College resumed classes despite very few resources, but in 1881 it again suspended its operations for a seven-year period. Colonel Benjamin Ewell, the President during this period, kept the College Charter alive, however, by ringing the bell of the Wren Building to mark the opening of each term.

In 1888, William and Mary reopened when the Commonwealth of Virginia provided an annual grant of \$10,000, and thereafter the State increased its financial commitment to the College. Finally, in 1906, the Commonwealth purchased the College and placed it under the control of a Board of Visitors appointed by the Governor as part of the state system of higher education, the form of government under which the College still operates. In 1918 the College became coeducational, and in the 16-year period that followed, its facilities were increased tenfold and its enrollment from 130 to 1300. From 1928 through 1932, the three original buildings of the College—the Wren,

HISTORY

the President's House and the Brafferton—were restored to their original appearance

through the generosity of John D. Rockefeller, Jr.

In its 20th century evolution, William and Mary has expanded rapidly. During World War II, it provided facilities for two armed forces programs, and in 1943 it established in cooperation with Colonial Williamsburg the Institute of Early American History and Culture. In 1946 enrollment reached 2000 for the first time in William and Mary's history.

After the war, the College not only grew itself, but was responsible for the genesis of four branch colleges, three of which have become four-year institutions in urban areas of Virginia. For a brief period, William and Mary was known as The Colleges of William and Mary, with branches in Richmond and Norfolk, but that arrangement was dissolved in 1962. Thereafter, with the encouragement of the Commonwealth, the College launched a major building program and undertook efforts to strengthen its program in liberal arts and sciences, while developing advanced professional and graduate programs appropriate to its tradition and competence. That building program in all aspects of the College's development is still under way.

Based on its expanded mission, the College received recognition in 1967 as having attained university status in the modern sense. At the same time, the Board of Visitors stipulated that the institution should always retain its original name of the College of

William and Mary in Virginia.

The modern College of William and Mary is an institution of 24 departments in its Faculty of Arts and Sciences, and schools of Business Administration, Education, Law, and Marine Science. It offers concentrations in 25 areas for the bachelors de-

gree, 17 for the master's, and four areas for the doctorate.

From a "hundred scholars more or less" envisioned in its Charter, William and Mary has grown to approximately 4000 full-time undergraduate students, and some 800 graduate students in law, business, education, and the arts and sciences. Despite its recent growth and development William and Mary's emphasis remains on individual relationships, the pre-eminence of teaching and learning, and the importance of the liberal education of the undergraduate student—the kind of relationship between student and teacher that Jefferson found in William Small, whom he credited with fixing "my destinies for life."

William and Mary's 24th President, Dr. Thomas A. Graves, Jr., who took office in September, 1971, defines William and Mary as "a college community, small enough to provide for a set of relationships that allows true teaching and learning to take place, large enough to have the resources to strive toward excellence." After nearly three centuries of existence, the College remains, as the President's statement suggests, a place of universal study dedicated to the concept of educating the whole individual,

and to the excellence that men such as Jefferson were committed.

THE CAMPUS

A visitor to the Sir Christopher Wren Building at the west end of the Duke of Gloucester Street may occasionally believe that this ancient building—the oldest classroom building in continuous use in America—is the beginning and end of the College of William and Mary. Indeed it is the most famous building on the campus, first constructed in 1695, ravaged three times by fire, and flanked as it is on each side by the President's House and The Brafferton, which survived with the Wren Building through the Revolutionary and Civil wars. But the Wren Building marks only the eastern tip of a campus that includes 1200 acres, approximately 40 major buildings, a large lake, extensive woods and numerous playing fields.

At the rear of the Wren, where—according to legend—Thomas Jefferson once looked westward and ventured the hope that "the College should always look upon the country," there is a long stretch of green and wooded land known as the Jefferson Prospect. It begins with the Sunken Garden, with its wide expanse of lush green lawn

THE CAMPUS

crossed by old brick walks and surrounded by beautiful boxwood, extends to an area known as Crim Dell, with its oriental bridge crossing a lily pond which is nestled in a clump of miniature woods, and continues to lovely Lake Matoaka. Surrounding Lake Matoaka is the College Woods, an area still in its virgin state, which has trails for hiking and provides an exceptional natural laboratory for students at the College.

The Jefferson Prospect forms the heart of the modern campus. The College has been constructed in stages during the nearly three centuries of William and Mary's existence, and is effectively designated by periods—the Ancient Campus, consisting of the Wren Building, the President's House, and the Brafferton; the Modern Campus, much of which was constructed in the 1920's and 30's and which extends from the Wren Building on either side of the Sunken Garden, to Crim Dell and beyond to Cary Stadium; and the New Campus, which has been under construction since the late 50's, through the 1960's, and now into the 70's, and which extends from Crim Dell almost to Lake Matoaka between Jamestown and Richmond Roads.

For a campus that was constructed over a period of nearly 300 years, there is an unusual degree of aesthetic symmetry among the buildings of the three areas. In the construction of the New Campus, the College continued the Georgian architecture and used Flemish Bond brick—the same as on the Modern Campus—which, in time, develops a soft, mellow effect. Moreover, the buildings were and are being constructed on a scale that enables and typifies the personal approach to education that forms the heart of William and Mary's educational mission.

Classes still take place in all three areas of the William and Mary campus, not excluding the Sir Christopher Wren Building where men such as Jefferson, Monroe and Tyler once studied. On the New Campus, where several classroom buildings are concentrated, the students find easy access from Swem Library, which forms the heart of the academic mall, to the William Small Physics Building, to Hugh Jones Hall, to another recently completed social science building, to Robert Andrews Hall of Fine Arts and Phi Beta Kappa Hall, and to John Millington Hall of Life Sciences. A new chemistry building will complete the academic court, whose buildings fan out to create a feeling of openness when one views the area from its front—Jamestown Road.

In construction of its residence halls in recent years, the College has extended its concept of personalized education. Rejecting the traditional pattern of large dormitory designs with long halls, low ceilings and inadequate recreation facilities, the College has completed in the late 60's and early 70's two clusters of residence halls that are designed in individualized units that accommodate up to 42 students per unit.

The new concept has enabled the College to apply its goal of comprehensive education to the residence halls in such innovative educational programs as Project Plus, in which 84 students live and take their academic work together in the same building under the same faculty who teach in the residence itself. Other residence units serve as language houses, adding an extra dimension to the education of students studying foreign languages within a common environment.

Within the overall concept of comprehensive education, William and Mary Hall, a multi-purpose facility that can seat up to 11,000, provides unique accommodations for intercollegiate athletics, physical education, and cultural activity. With its potential for varied uses, William and Mary Hall may accommodate within the same week an indoor track meet, an intercollegiate basketball game, a debate between two leading thinkers of the country, a concert by a prominent artist, or a routine College event such as registration.

Amidst the bustling academic activity that occurs within the buildings, students and faculty can still walk across one of the loveliest campuses in the nation—adorned and scented by boxwood, dogwood, azaleas, lilacs, redbud trees, Japanese cherry, and cryptomeria. It is a campus well-suited to the Jeffersonian dream and at the same time

responsive to today's educational needs and desires.

PRESIDENTS OF THE COLLEGE

JAMES BLAIR, 1693-1743

WILLIAM DAWSON, 1743–1752 ROBERT SAUNDERS, 1847–1848

WILLIAM STITH, 1752–1755 BENJAMIN S. EWELL, 1848–1849

THOMAS DAWSON, 1755–1760 JOHN JOHNS, 1849–1854

WILLIAM YATES, 1761–1764 BENJAMIN S. EWELL, 1854–1888

THOMAS RODERICK DEW, 1836-1846

JAMES HORROCKS, 1764–1771 LYON G. TYLER, 1888–1919

JOHN CAMM, 1771–1777 JULIAN A. C. CHANDLER, 1919–1934

JAMES MADISON, 1777–1812 JOHN STEWART BRYAN, 1934–1942

JOHN BRACKEN, 1812–1814 JOHN EDWIN POMFRET, 1942–1951

JOHN AUGUSTINE SMITH, 1814–1826 ALVIN DUKE CHANDLER, 1951–1960

WILLIAM H. WILMER, 1826–1827 DAVIS YOUNG PASCHALL, 1960–1971

ADAM EMPIE, 1827–1836 THOMAS ASHLEY GRAVES, JR., 1971–

CHANCELLORS OF THE COLLEGE

HENRY COMPTON, Bishop of London, 1693-1700

THOMAS TENISON, Archbishop of Conterbury, 1700–1707

HENRY COMPTON, Bishop of London, 1707-1713

JOHN ROBINSON, Bishop of London, 1714-1721

WILLIAM WAKE, Archbishop of Canterbury, 1721-1729

EDMUND GIBSON, Bishop of London, 1729-1736

WILLIAM WAKE, Archbishop of Conterbury, 1736-1737

EDMUND GIBSON, Bishop of London, 1737-1748

THOMAS SHERLOCK, Bishop of London, 1749–1761

THOMAS HAYTER, Bishop of London, 1762

CHARLES WYNDHAM, Earl of Egremont, 1762-1763

PHILIP YORKE, Earl of Hardwicke, 1764

RICHARD TERRICK, Bishop of London, 1764-1776

GEORGE WASHINGTON, First President of the United States, 1788-1799

IOHN TYLER, Tenth President of the United States, 1859-1862

HUGH BLAIR GRIGSBY, Historian, 1871-1881

JOHN STEWART BRYAN, Twentieth President of the College of William and Mary, 1942–1944

COLGATE W. DARDEN, JR., Governor of Virginia, 1946-1947

ALVIN DUKE CHANDLER, Twenty-second President of the College of William and Mary, 1962-

BOARD OF VISITORS

R. HARVEY CHAPPELL, JR. JOHN R. L. JOHNSON, JR. MRS. GEORGE FALCK RECTOR VICE RECTOR SECRETARY

Term expires March 6, 1976

WILLITS H. BOWDITCH R. HARVEY CHAPPELL, JR. ROBERT J. FAULCONER WILLIAM S. HUBARD JAMES E. KILBOURNE MRS. VICTOR POWELL JOHN W. HANES, JR. YORKTOWN, VA. RICHMOND, VA. NORFOLK, VA. ROANOKE, VA. PETERSBURG, VA. ANNANDALE, VA. GREAT FALLS, VA.

Term expires March 6, 1978

JOHN BRUCE BREDIN
MRS. CARTER C. CHINNIS
T. C. CLARKE
DR. GARRETT DALTON
FREDERICK DEANE, JR.
MRS. GEORGE FALCK
JOHN R. L. JOHNSON, JR.
MISS ANNE DOBIE PEEBLES
DR. GEORGE SANDS
J. E. ZOLLINGER

GREENVILLE, DEL.
ALEXANDRIA, VA.
NORFOLK, VA.
RADFORD, VA.
RICHMOND, VA.
McLEAN, VA.
CHADDS FORD, PA.
CARSON, VA.
WILLIAMSBURG, VA.
FORT LAUDERDALE, FLA.

Standing Committees of the Board of Visitors

- EXECUTIVE COMMITTEE: R. Harvey Chappell, Jr., Chairman; Frederick Deane, Jr., Mrs. George Falck, Dr. Robert J. Faulconer, Mr. William Hubard, Mr. John R. L. Johnson, Jr., Mrs. Victor Powell.
- COMMITTEE ON FINANCE: Frederick Deane, Chairman, Willits H. Bowditch, T. C. Clarke, John Hanes, Dr. James E. Kilbourne, J. E. Zollinger
- COMMITTEE ON BUILDINGS AND GROUNDS: Mrs. George Falck, Chairman, Willits H. Bowditch, J. Bruce Bredin, T. C. Clarke, Mrs. Victor Powell, Dr. George Sands.
- COMMITTEE ON ACADEMIC AFFAIRS: Dr. Robert J. Faulconer, Chairman, Dr. Garrett Dalton, John Hanes, Dr. James E. Kilbourne, Miss Anne Dobie Peebles, Dr. George Sands
- COMMITTEE ON HONORARY DEGREES: R. Harvey Chappell, Jr., Chairman, Dr. Garrett Dalton, Dr. Robert J. Faulconer, John R. L. Johnson, Jr., Miss Anne Dobie Peebles, Mrs. Victor Powell, J. E. Zollinger.
- COMMITTEE ON DEVELOPMENT AND ALUMNI AFFAIRS: William Hubard, Chairman, Mrs. Carter Chinnis, Frederick Deane, Jr., John R. L. Johnson, Jr., Miss Anne Dobie Peebles, J. E. Zollinger.
- COMMITTEE ON STUDENT AFFAIRS: Mrs. Victor Powell, Chairman, J. Bruce Bredin, Mrs. Carter Chinnis, Frederick Deane, Jr., Mrs. George Falck, William Hubard.

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Thomas A. Graves, Jr. James S. Kelly Jerry Van Voorhis Jane H. Latham Diana C. Love President
Assistant to the President
Assistant to the President
Assistant to the President
Recording Secretary, Board of Visitors
Secretary

Office of the Executive Vice President

Carter O. Lowance Ross L. Weeks, Jr. Nell R. Jones Executive Vice President
Assistant to the Executive Vice President
Administrative Assistant to the Executive Vice President

Office of the Vice President for Academic Affairs

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Director, Virginia Associated Research Campus
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Librarian
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Registrar
Assistant Registrar
Assistant Registrar

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Irving H. Robitshek

William J. Carter

Willard C. Sterling, Jr. Floyd E. Whitaker Raymond A. Adams, Jr. Gladys A. Campbell Evelyn P. Kidd Martha M. Muntean William A. Snyder Vice President for Business Affairs
Assistant to the Vice President for Business Affairs
and Director of the Budget
Assistant Director of the Budget
Director of Purchases and Stores
Director of Buildings and Grounds
Assistant Director of Buildings and Grounds
Director of Safety and Security
Director of College Residences
Manager, College Bookstore
Director of Personnel
and Equal Employment Opportunities Officer

Internal Auditor Treasurer Controller Supervisor of Student Loon Accounts Supervisor of Student Accounts Supervisor of College Payroll Office Chief Accountant

¹Directory accurate as of June 1, 1974.

Office of the Vice President for College Development

Warren Heemann Stanley E. Brown Leonard A. Meyer Robert T. Petty Jeff R. Shy Stella D. Neiman Andrew D. Parker, Jr. Vice President for College Development Director for Corporate Relations and Placement Director for Annual Giving Assistant Director for Annual Giving Assistant Director for Annual Giving Director for Sponsored Programs Director for Special Gifts

Office of the Dean of the Undergraduate Program

James C. Livingston W. Samuel Sadler Carolyn L. Moseley Susan J. Albert Frank L. Field John P. Morgan Lori T. Cornette John C. Bright Jay Lee Chambers Warren J. Green Kenneth E. Smith, Jr.

E. Leon Looney Leroy O. Moore Dean of the Undergraduate Program
Dean of Students
Associate Dean for Administration
Associate Dean for Student Development
Associate Dean for Career Counseling
Associate Dean for Residence Hall Life
Assistant Dean for Residence Hall Life
Director of Veteran Affairs
Director of the Psychological Counseling Center
Director of the Campus Center
Associate Director of the Campus Center
and Director of Student Activities
Director of Student Aid
Director of Minority Student Affairs

Office of Admissions

Robert P. Hunt Rex Tillotson Harriett E. Reid Juanita W. Wallace Dean of Admissions Associate Dean of Admissions Associate Dean of Admissions Assistant Dean of Admissions

Earl Gregg Swem Library

William C. Pollard Alva W. Stewart Librarian Associate Librarian

Office of Information Services

Ross L. Weeks, Jr. Barbara S. Ball S. Dean Olson Eleanor R. Anderson James N. Chalkley Director, Information Services
Director, News Office
Director of Publications
Information Officer
Supervisor, Printing Office

Office of Institutional Research

Donald J. Herrmann Jean C. Keating Director, Institutional Research Assistant Director, Institutional Research

Space Radiation Effects Laboratory

Robert T. Siegel Director of SREL

Student Health Services

Dr. Richard D. Cilley Dr. Franklin A. Munsey Bettye Bracey, R. N. Director, Student Health Services Assistant Director, Student Health Services Head Nurse

Department of Athletics

Ben L. Carnevale Edmund T. Derringe Barry G. Fratkin Director of Athletics
Business Manager
Director of Promotions and Executive
Director of Educational Foundation
Sports Information Director

Robert A. Sheeran

William and Mary Hall

H. Lester Haaker, Jr. Bettie S. Adams Director of William and Mary Hall Assistant Director of William and Mary Hall

Alumni Affairs

Gordon C. Vliet

Executive Vice President of Society of the Alumni

Faculty of Arts and Sciences

Jack D. Edwards David E. Kranbuehl John E. Selby Dean Associate Dean Graduate Dean

Marshall-Wythe School of Law

James P. Whyte Timothy J. Sullivan J. Madison Whitehead Deon Associate Dean for Administration Law Librarian

School of Business Administration

Charles L. Quittmeyer William E. O'Connell, Jr. James E. Smith

Associate Dean for Graduate Studies Associate Dean for Undergraduate Studies

School of Education

James M. Yankovich Robert C. Jones

Dean Associate Dean

School of Marine Science

William J. Hargis, Jr. John L. Wood Michael E. Bender W. J. Davis John M. Zeigler Roy J. Washer

Dean Associate Director Assistant Director Assistant Director Assistant Administrative Director



- THOMAS A. GRAVES, JR., President of the College. B.A. Yale University; M.B.A. and D.B.A., Harvard University.
- CARTER O. LOWANCE, Executive Vice President. A.B. Roanoke College.
- GEORGE R. HEALY, Vice President for Academic Affairs. B.A., Oberlin College; M.A. and Ph.D., University of Minnesota.
- THOMAS CONNER ATKESON (1954, 1954), Chancellor Professor of Taxation, Emeritus. B.S., M.S. and Ph.D., Georgetown University.
- J. WORTH BANNER (1965, 1949, 1964), Professor of Modern Languages, Emeritus. B.S., Roanoke College; M.A. and Ph.D., University of North Carolina.
- MARTHA ELIZABETH BARKSDALE (1936, 1921), Associate Professor of Physical Education for Women, Emeritus. O.D., Gymnastic Peoples College, Ollerup, Denmark; A.B. and M.A., College of William and Mary.
- RICHARD B. BROOKS (1967, 1947, 1967), Professor of Education, Emeritus. B.P.E., Springfield College (Massachusetts); M.A., University of Pennsylvania; Ed.D., University of Virginia.
- EMILY ELEANOR CALKINS (1953, 1927), Associate Professor of Mathematics, Emeritus. A.B., College of William and Mary; M.A., University of Michigan.
- LESTER J. CAPPON (1946, 1946), Lecturer in History, Emeritus. A.B. and M.A., University of Wisconsin; M.A. and Ph.D., Harvard University.
- JAMES DAVID CARTER, JR. (1930, 1927), Associate Professor of Modern Languages, Emeritus. A.B., College of William and Mary; Docteur de l'Universite de Toulouse.
- HIBBERT DELL COREY (1943, 1929), Professor of Business Administration, Emeritus. A.B., University of Michigan; M.A., Ohio State University.
- GEORGE W. CRAWFORD (1972, 1960), Professor of Physics, Emeritus. B.S., Davidson College; M.S., University of North Carolina; Ph.D., Ohio State University.
- BIRDENA E. DONALDSON (1956, 1956), Dean of Women, Emeritus. A.B., Franklin College; M.A., Northwestern University; Ed.D., Columbia University.
- CARL A. FEHR (1961, 1945), Chancellor Professor of Music, Emeritus. A.B. and M.A., University of Texas; M.Mus., University of Michigan; Ed.D., Columbia University.
- HAROLD LEES FOWLER (1946, 1934), Professor of History, Emeritus. A.B., Dartmouth College; M.A. and Ph.D., Harvard University.
- WAYNE FULTON GIBBS (1931, 1926), Professor of Accountancy, Emeritus. B.S. and M.S., University of Illinois; C.P.A.
- E. LEWIS HOFFMAN (1968, 1947), Professor of Modern Languages, Emeritus. B.S., Roanoke College; M.A. and Ph.D., George Washington University.
- W. MELVILLE JONES (1953, 1928), Chancellor Professor of English, Emeritus. A.B., Allegheny College; M.A., Ohio State University; Ph.D., Harvard University.
- J. WILFRED LAMBERT (1959, 1931), Professor of Psychology, Emeritus. A.B., College of William and Mary.
- LAWRENCE C. LEONARD (1957, 1955), Lecturer in Mathematics, Emeritus. B.S., U.S. Military Academy.
- JOHN H. LONG (1968, 1955), Associate Professor of Physics, Emeritus. B.S., U.S. Naval Academy; M.S., Harvard University.
- JEAN STEWART MAJOR (1928, 1928), Associate Professor of Home Economics, Emeritus. B.S. and M.A., Columbia University.

¹ The first date indicates the year when the present rank was attained; the second date the year when the individual was first appointed to the instructional staff. A third date indicates the year of reappointment. This list is a record of all faculty of the College for the academic year 1974–75, as of June 1, 1974.

- CHARLES F. MARSH (1968, 1930, 1968), Lecturer in Business Administration, Emeritus. A.B., Lawrence College; M.A. and Ph.D., University of Illinois.
- CARL W. MCCARTHA (1965, 1955), Professor of Education, Emeritus. A.B., Newberry College; M.A., University of North Carolina; Ed.D., University of Florida.
- BEN CLYDE MCCARY (1968, 1930), Professor of Modern Languages, Emeritus. A.B., University of Richmond; Docteur de l'Université de Toulouse.
- RICHARD LEE MORTON (1921, 1919), Choncellor Professor of History, Emeritus. A.B., Hampden-Sydney College; M.A., University of Virginia and Harvard University; Ph.D., University of Virginia; Litt.D., Hampden-Sydney College; LL.D., College of William and Mary.
- WILLIAM WARNER MOSS, JR. (1937, 1937), John Marshall Professor of Government and Citizenship, Emeritus. A.B., University of Richmond; M.A. and Ph.D., Columbia University.
- BRUCE T. MCCULLY (1961, 1940), Professor of History, Emeritus. A.B., Rutgers University; M.A. and Ph.D., Columbia University.
- DAVIS Y. PASCHALL (1960, 1960), President of the College, Emeritus. A.B., M.A., College of William and Mary; Ed.D., University of Virginia.
- ARTHUR WARREN PHELPS (1945, 1945). Professor of Low, Emeritus. A.B., Washington and Lee University; M.A., Ohio State University; J.D., University of Cincinnati; LL.M., Columbia University.
- MARCEL REBOUSSIN (1962, 1946), Professor of Modern Languages, Emeritus. Professorat de français, Ecole Normale Supérieure de St. Cloud; M.A., Columbia University; Agrégé des lettres, Sorbonne, Paris.
- MARION DALE REEDER (1967, 1943), Professor of Physical Education for Women, Emeritus. B.S. and M.S., University of Illinois.
- GORDON B. RINGGOLD (1963, 1946), Professor of Modern Languages, Emeritus. A.B., Denison University; M.A., Middlebury College; Ph.D., Georgetown University.
- GRACE M. SMITH (1966, 1966), Associate Professor of Education, Emeritus. A.B. and M.Ed., University of Virginia.
- HOWARD STONE (1963, 1948), Professor of Modern Languages, Emeritus. A.B., Pomona College; M.A., Claremont Graduate School and University Genter; Ph.D., University of California, Berkeley.
- ALBION GUILFORD TAYLOR (1928, 1927), Choncellor Professor of Political Economy, Emeritus. A.B., Des Moines University; M.A., University of Nebraska; Ph.D., University of Illinois.
- ALMA L. WILKIN (1957, 1928), Associate Professor of Home Economics, Emeritus. B.S., Kansas State University; M.A., Teachers College, Columbia University.
- MARGARET WINDER (1959, 1948, 1959), Assistant Professor of Education, Emeritus. B.S., Madison College; M.A., College of William and Mary.
- WALTER S. ZIMMERMANN (1966, 1966), Associate Professor of Modern Longuages, Emeritus. B.S. and Ph.D., New York University.
- HENRY ACETO, JR. (1970, 1970), Associate Professor of Biology. B.S., State University of New York, Albany; M.S., University of California, Berkeley; Ph.D., University of Texas.
- FRED L. ADAIR (1971, 1971), Associate Professor of Education. B.S., University of North Carolina; M.A.T., Duke University; Ph.D., University of North Carolina.
- JOSEPH S. AGEE (1969, 1958), Associate Professor of Physical Education for Men. B.S. and M.Ed., College of William and Mary.
- ALAN F. ALBERT (1974, 1971), Assistant Professor of Physical Education for Men. A.B. and M.Ed., College of William and Mary.
- NATHAN ALTSHULER (1967, 1960), Professor of Anthropology. A.B., University of Michigan; Ph.D., Harvard University.
- CARL M. ANDERSEN (1972, 1967), Senior Research Associate in Mathematics. B.S. and M.S., University of Michigan; Ph.D., University of Pennsylvania.

- CHARLES HARPER ANDERSON (1957, 1946), Lecturer in Low. A.B. and B.C.L., College of William and Mary; LL.M., University of Virginia.
- JAY D. ANDREWS (1959, 1946), Professor of Marine Science. B.S., Kansas State College; M.S. and Ph.D., University of Wisconsin.
- DEE G. APPLEY (1972, 1972), Lecturer in Psychology. A.B., University of Denver; Ph.D., University of Michigan.
- M. JOY ARCHER (1972, 1968), Associate Professor of Physical Education for Women. B.S., Skidmore College; M.Ed., College of William and Mary.
- ALFRED R. ARMSTRONG (1961, 1933), Professor of Chemistry. B.S., and M.A., College of William and Mary: Ph.D., University of Virginia.
- VICKIE BABENKO (1974, 1974), Assistant Professor of Modern Languages. Ph.D. University of Hamburg.
- ELISABETH E. BACKHAUS (1967, 1966), Assistant Professor of Modern Languages. A.B., M.A. and Ph.D., University of Connecticut.
- SAMUEL H. BAKER, III (1973, 1969), Associate Professor of Economics. B.S., Hampden-Sydney College; Ph.D., University of Virginia.
- GEORGE BALANIS (1971, 1971), Lecturer in Physical Education for Men. B.A., University of Texas.
- JOHN T. BALDWIN, JR. (1946, 1937, 1946), Professor of Biology. A.B., College of William and Mary; Ph.D., University of Virginia.
- DONALD L. BALL (1969, 1960), Associate Professor of English. A.B., University of Richmond; M.A., University of Delaware; Ph.D., University of North Carolina, Chapel Hill.
- CAROL E. BALLINGALL (1970, 1965), Associate Professor of Anthropology. A.B., Wayne State University; M.A., University of Chicago.
- NORMAN F. BARKA (1970, 1965), Associate Professor of Anthropology. A.B., Beloit College; M.A. and Ph.D., Harvard University.
- JAMES R. BARON (1971, 1971), Assistant Professor of Classical Studies. A.B., Catholic University, M.A. and Ph.D., University of Minnesota.
- ROBERT A. BARRY (1972, 1964), Associate Professor of Economics. A.B., Stanford University; Ph.D., Yale University.
- JOANNE M. BASSO (1974, 1967), Assistant Professor of Modern Languages. A.B., Connecticut College for Women; M.A., Middlebury College.
- DONALD J. BAXTER (1973, 1967), Associate Professor of Government. A.B., Sacramento State College; M.A. and Ph.D., Syracuse University.
- RUTH A. BECK (1973, 1969), Assistant Professor of Biology. A.B., Radford College; M.Ed., University of Virginia.
- LAWRENCE S. BECKHOUSE (1968, 1968), Associate Professor of Sociology. A.B., Knox College; M.A. and Ph.D., Vanderbilt University.
- MICHAEL E. BENDER (1970, 1970), Associate Professor of Marine Science. B.A., Southern Illinois University; M.S., Michigan State University; Ph.D., Rutgers University.
- JAMES B. BERRYHILL (1971, 1971), Instructor in Physical Education for Men. B.S., Old Dominion College; M.Ed., Western Maryland College.
- R. CARLYLE BEYER (1965, 1965), Professor of History. A.B., Hamline University; A.B. and M.A., Oxford University; Ph.D., University of Minnesota.
- KENNETH F. BICK (1966, 1961), Professor of Geology. B.S., M.S. and Ph.D., Yale University.
- RUDOLF H. BIERI (1972, 1972), Associate Professor of Marine Science. Ph.D., Gutenberg University.
- ROBERT E. L. BLACK (1965, 1959), Professor of Biology and Marine Science. A.B., William Jewell College; Ph.D., University of Washington.

- JERRY H. BLEDSOE (1971, 1971), Associate Professor of Theatre and Speech. A.B., University of Colorado; M.A., University of California, Los Angeles; Ph.D., Purdue University.
- RICHARD M. BLOCH (1972, 1972), Lecturer in Psychology. B.S., University of Pittsburgh; M.A. and Ph.D., University of Wisconsin.
- RICHARD M. BLOOD (1972, 1972), Assistant Professor of Business Administration. B.S., Ursinus College; M.A. Temple University.
- ROBERT B. BLOOM (1973, 1973), Assistant Professor of Education. B.S., University of Chicago; M.A., Northeastern Illinois University; Ph.D., University of Minnesota.
- DONALD F. BOESCH (1972, 1972), Assistant Professor of Marine Science. B.S., Tulane University; Ph.D., William and Mary.
- EDWARD H. BOGART (1974, 1974), Assistant Instructor in Psychology. A.B., College of William and Mary.
- F. ROBERT BOHL, JR. (1972, 1972), Assistant Professor of Philosophy. A.B., Rutgers University; M.A. and Ph.D., Brown University.
- ERIC L. BRADLEY (1971, 1971), Assistant Professor of Biology. A.B., San Fernando Valley State College; Ph.D., University of California, Santa Barbara.
- ROY E. BRINKLEY (1971, 1971), Assistant Professor of Education. B.A., Randolph-Macon College; B.D., Union Theological Seminary; Ed.M., Temple University.
- GARNETT R. BROOKS, JR. (1973, 1962), Professor of Biology. B.S. and M.S., University of Richmond; Ph.D., University of Florida.
- ELIZABETH J. BROWN (1972, 1972). Associate Professor of Physical Education for Women. B.S., University of North Carolina, Greensboro; M.S., Florida State University.
- MARION M. BROWN (1969, 1966), Assistant Professor of Theatre and Speech. A.B. and M.A., University of California at Los Angeles.
- RICHARD MAXWELL BROWN (1967, 1967), Professor of History. A.B., Reed College; A.M. and Ph.D., Harvard University.
- RONALD C. BROWN (1972, 1970), Associate Professor of Law. B.S., University of Toledo; J.D., University of Toledo Law School; LL.M., University of Michigan Law School.
- STEPHEN B. BRUSH (1973, 1973), Assistant Professor of Anthropology. A.B., University of California, Berkeley; M.A. and Ph.D., University of Wisconsin, Madison.
- G. WILLIAM BULLOCK, JR. (1967, 1967), Associate Professor of Education. A.B., Lynchburg College; M.Ed. and Ed.D., University of Virginia.
- WILLIAM L. BYNUM (1971, 1969). Associate Professor of Mathematics. B.S., Texas Technological College; M.A. and Ph.D., University of North Carolina, Chapel Hill.
- MITCHELL A. BYRD (1963, 1956), Professor of Biology. B.S., M.S. and Ph.D., Virginia Polytechnic Institute.
- ROBERT J. BYRNE (1969, 1969), Associate Professor of Marine Science. M.S., University of Chicago; Ph.D., University of Chicago.
- CRAIG N. CANNING (1973, 1973), Assistant Professor of History. A.B., University of Utah; M.A., Stanford University.
- CARL E. CARLSON (1972, 1972), Assistant Professor of Physics. A.B. and Ph.D., Columbia University.
- BERNARD L. CARNEVALE (1972, 1972), Professor of Physical Education for Men. B.S., New York University; M.S., University of North Carolina, Chapel Hill.
- JANE CARSON (1963, 1963), Lecturer in History. A.B., Flora Macdonald College; M.A. and Ph.D., University of Virginia.
- MICHAEL CASTAGNA (1973, 1973), Assistant Professor of Marine Science. B.S. and M.S., Florida State University.
- BENJAMIN RALPH CATO, JR. (1972, 1955), Prafessor of Mathematics. A.B. and M.A., Duke University.

- LOUIS E. CATRON (1969, 1966), Associate Professor of Theatre and Speech. A.B., Millikin University; M.A. and Ph.D., Southern Illinois University.
- LINDA R. CAVINESS, (1973, 1973), Lecturer in Sociology. A.B. and M.A., North Carolina State University.\(^1\)
- JAY LEE CHAMBERS (1972, 1970), Professor of Psychology. A.B., George Washington University, M.A. and Ph.D., University of Kentucky.
- ROY L. CHAMPION (1971, 1967), Associate Professor of Physics. B.S. and M.S., North Carolina State University at Raleigh; Ph.D., University of Florida.
- MILES L. CHAPPELL (1971, 1971), Assistant Professor of Fine Arts. B.S., College of William and Mary; Ph.D., University of North Carolina, Chapel Hill.
- BENNY W. CHASTAIN (1973, 1973), Assistant Professor of Business Administration. B.B.A. and M.B.A., North Texas State University.
- ROYCE W. CHESSER (1971, 1962), Professor of Education. A.B., Wake Forest University; M.Ed., College of William and Mary.
- THOMAS W. CHRIST (1971, 1971). Assistant Professor of Sociology. A.B., College of William and Mary; M.S. and Ph.D., Cornell University.
- PAUL N. CLEM (1968, 1959), Professor of Education. A.B., Bridgewater College; M.A. and Ed. D., Michigan State University.
- STEPHEN C. CLEMENT (1969, 1964), Associate Professor of Geology. A.B., Cornell University; M.S., University of Utah; Ph.D., Cornell University.
- PAUL P. CLOUTIER (1972, 1972), Assistant Professor of Modern Languages. A.B., University of Massachusetts; M.A. and Ph.D., University of Wisconsin.
- WILLIAM S. COBB, JR. (1969, 1967), Associate Professor of Philosophy. A.B., Wake Forest University; B.D., Union Theological Seminary, New York; Ph.D., Vanderbilt University.
- JAMES W. COKE (1964, 1957), Associate Professor of Modern Languages. A.B., Western Kentucky University; M.A. and Ph.D., Indiana University.
- GEORGE D. COLE, JR. (1972, 1968), Associate Professor of Business Administration. A.B., Duke University; B.D., Yale University; Ed.D., Columbia University.
- HENRY E. COLEMAN (1972, 1964), Associate Professor of Fine Arts. A.B., College of William and Mary; M.A., State University of Iowa.
- RANDOLPH A. COLEMAN (1970, 1970), Assistant Professor of Chemistry. A.B., Susquehanna University; Ph.D., Purdue University.
- TOM A. COLLINS (1972, 1970), Associate Professor of Law. A.B., Indiana University; J.D., Indiana University-Indianapolis Law School; LL.M., University of Michigan Law School.
- JOHN W. CONLEE (1972, 1968), Associate Professor of English. A.B., University of Southern California; M.A. and Ph.D., University of Illinois.
- LUTHER THOMAS CONNER, JR. (1974, 1964), Associate Professor of Mathematics. B.S., Virginia Polytechnic Institute; M.A., University of North Carolina, Chapel Hill.
- GILBERT L. COOKE (1971, 1971), Instructor in Modern Languages. A.B., College of William and Mary.
- BRADNER W. COURSEN (1969, 1968), Professor of Biology. A.B., Drew University; M.S. and Ph.D., University of Maryland.
- COLIN R. COX (1972, 1972), Research Associate in Physics. A.B. and Ph.D., Oxford University.
- R. MERRITT COX (1972, 1972), Associate Professor of Modern Languages. A.B., University of Richmond; M.A. and Ph.D., University of Wisconsin.
- M. BOYD COYNER, JR., (1972, 1969), Professor of History. A.B., M.A., and Ph.D., University of Virginia.

^{1 1973-74} only

- EDWARD P. CRAPOL (1971, 1967), Associate Professor of History. B.S., State University of New York at Buffalo; M.S. and Ph.D., University of Wisconsin.
- PATRICIA B. CROWE (1971, 1965), Associate Professor of Physical Education for Women. B.S., Sargent College, Boston University; M.S., University of North Carolina, Greensboro.
- FREDERIC R. CROWNFIELD, JR., (1968, 1956), Professor of Physics. A.B., Harvard College; M.S. and Ph.D., Lehigh University.
- CHARLES T. CULLEN (1971, 1971), Lecturer in History. A.B., University of the South; M.S., Florida State University; Ph.D., University of Virginia.
- GEORGE M. CURTIS, III (1974, 1974), Lecturer in History. A.B., State University of Iowa; M.A., University of Kansas; Ph.D., University of Wisconsin.
- WAGIH G. DAFASHY (1969, 1965), Associate Professor of Business Administration. B.Com., Ein Shams University, Cairo; M.B.A., University of Texas; Ph.D., University of Arkansas.
- RICHARD E. DAMON (1971, 1971), Assistant Professor of Government. A.B., Swarthmore College; Ph.D., Columbia University.
- JAMES S. DARLING (1961, 1961), Lecturer in Music. A.B., Yale University; B.M., Yale University School of Music; M.M., University of Michigan.
- CHARLES EDWARD DAVIDSON (1964, 1949), Professor of English. A.B., Princeton University; M.A. and Ph.D., Yale University.
- WILLIAM F. DAVIS, JR. (1968, 1960), Associate Professor of English. A.B., Princeton University; M.A. and Ph.D., Yale University.
- WILLIAM JACKSON DAVIS (1963, 1963), Associate Professor of Marine Science. B.S., Virginia Polytechnic Institute; Ph.D., University of Kansas.
- CARL P. DAW, JR., (1970, 1970), Assistant Professor of English. A.B., Rice University; M.A. and Ph.D., University of Virginia.
- FRANCIS K. DEGGES (1973, 1973), Instructor in Morine Science. B.S., Hampden-Sydney College; M.S., Pennsylvania State University.
- JEWEL L. DELAUNE (1971, 1966), Assistant Professor of Education. A.B., M.A. and B.S. in L.S., Louisiana State University.
- JOHN B. DELOS (1971, 1971), Assistant Professor of Physics. B.S., University of Michigan; Ph.D., Massachusetts Institute of Technology.
- SUE ELLEN DELOS (1973, 1973), Lecturer in Chemistry. B.S., University of Michigan.²
- PETER L. DERKS (1971, 1960), Professor of Psychology. A.B., Knox College; M.A., Harvard University; Ph.D., University of Pennsylvania.
- EDMUND T. DERRINGE (1970, 1957), Assistant Professor of Physical Education for Men. B.S., Georgetown University; M.Ed., College of William and Mary.
- JAN B. deWEYDENTHAL (1970, 1970), Assistant Professor of Government. LL.M., Jagiellonian University, Poland; Ph.D., University of Notre Dame.
- ELSA S. DIDUK (1974, 1966), Associate Professor of Modern Languages. B.S., Temple University; M.A., Columbia University.
- CIRILA DJORDJEVIC (1972, 1968), Professor of Chemistry. B.S., Zagreb University; Ph.D., University College, London (England).
- CARL R. DOLMETSCH (1967, 1959), Professor of English. A.B. and M.A., Drake University; Ph.D., University of Chicago.
- JOHN E. DONALDSON (1970, 1966), Professor of Law. A.B., University of Richmond; J.D., College of William and Mary; LL.M., Georgetown University.
- J. SCOTT DONALDSON (1974, 1966), Professor of English. A.B., Yale University; M.A. and Ph.D., University of Minnesota.²

¹ On leave of absence second semester.

² On leave of absence second semester

- MICHAEL K. DONEGAN, (1973, 1973), Assistant Professor of Mothemotics. A.B. and M.S., Rice University.
- LYNN D. DOVERSPIKE (1971, 1967), Associate Professor of Physics. B.S., Oklahoma State University; M.S., University of California, Los Angeles; Ph.D., University of Florida.
- JOHN H. DREW (1970, 1970), Assistant Professor of Mathematics. B.S., Case Institute of Technology; Ph.D., University of Minnesota.
- KERMIT L. DUNAHOO (1973, 1973), Assistant Professor of Law. B.S., Iowa State University; M.S., Iowa State University; J.D., Drake University Law School.
- JOHN L. DUPUY (1968, 1968), Assistant Professor of Marine Science. B.S., Oglethorpe University; M.S., Rutgers. The State University; Ph.D., University of Washington.
- HUGH B. EASLER (1962, 1962), Assistant Professor of Mathematics. A.B., Wofford College; M.S., University of South Carolina.
- MORTON ECKHAUSE (1973, 1964), Professor of Physics. A.B., New York University; M.S. and Ph.D., Carnegie Institute of Technology.
- EUGENE EDELMAN (1973, 1973), Assistant Professor Education. B.S., M.S. and Ed.D., University of Missouri (Columbia).
- VERNON H. EDMONDS (1971, 1967), Professor of Sociology. A.B., Oklahoma State University; M.S., Purdue University; Ph.D., University of Missouri.
- JACK D. EDWARDS (1973, 1962), Professor of Government. A.B., Macalester College; LL.B., Harvard Law School; Ph.D., Vanderbilt University.
- PIETER ELGERS (1970, 1970), Assistant Professor of Business Administration. B.B.A., Manhattan College; M.B.A., St. John's University; C.P.A.
- ARCHIBALD C. ELIAS, JR. (1972, 1972). Instructor in English. A.B., Princeton University; M.A., Stanford University; Ph.D., Yale University.
- NATHANIEL Y. ELLIOTT (1970, 1963), Associate Professor of English. B.S., State University of New York, Fredonia; M.A., Syracuse University; Ph.D., Cornell University.
- PETER J. EMANUEL, Major (1972, 1972). Assistant Professor of Military Science. B.S., Colorado State University; M.Ed., College of William and Mary.
- ANTHONY J. ESLER (1972, 1962), Professor of History. A.B., University of Arizona; M.A. and Ph.D., Duke University.
- CAROL C. ESLER (1973, 1973), Assistant Professor of Classical Studies. A.B., Oberlin College; M.A. and Ph.D., Bryn Mawr College.
- FRANK BROOKE EVANS, III (1961, 1947), Professor of English. A.B., Amherst College; M.A. and Ph.D., Princeton University.
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- COLIN PARK (1973, 1973), Professor of Business Administration. M.B.A., University of Buffalo; Ph.D., University of Chicago.
- JAE H. PARK (1974, 1974), Research Assistant Professor of Physics. B.S., Seoul National University, Korea; M.S., Wilkes College; Ph.D., University of Colorado.
- WILLIAM B. PARKHILL (1972, 1972), Instructor in Physical Education for Men. B.S., Lock Haven State College.
- SLOANE W. PAYNE, JR. (1970, 1970), Assistant Professor of Psychology. A.B., and Ph.D., University of North Carolina, Chapel Hill.
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¹ On leave of absence 1974-75.

- CLIFFORD H. PENCE, JR. (1973, 1970), Assistant Professor of Theatre and Speech. A.B., College of William and Mary; M.S., Temple University.
- CHARLES F. PERDRISAT (1969, 1966), Associate Professor of Physics. B.S., University of Geneva; D.Sc., Federal Institute of Technology, Zurich.
- FRANK O. PERKINS (1973, 1966), Associate Professor of Marine Science. A.B., University of Virginia; M.S. and Ph.D., Florida State University.
- RAYMOND PETRILLO (1974, 1974), Assistant Professor of Modern Languages. A.B., Brooklyn College; M.A., Rutgers, the State University.
- KENNETH G. PETZINGER (1972, 1972), Assistant Professor of Physics. A.B., Princeton University; M.A., Columbia University; Ph.D., University of Pennsylvania.
- WILLIAM CARTER POLLARD (1966, 1966), Librarian. A.B., University of North Carolina; M.A., Florida State University.
- WILLIAM G. POOLE, JR. (1970, 1970), Assistant Professor of Mathematics. A.B. and M.A., University of Texas; Ph.D., University of California, Berkeley.
- BOLLING RAINES POWELL, JR. (1969, 1969), Professor of Law. A.B., Birmingham-Southern College; M.A. and LL.B., University of Virginia.
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- RICHARD H. PROSL (1969, 1966), Associate Professor of Mathematics. B.S., College of William and Mary; A.B. and M.A., University College, Oxford; M.S. and Ph.D., Rensselaer Polytechnic Institute.
- LIDIA M. V. QUAGLIANO (1974, 1974), Visiting Professor of Chemistry. B.S., Instituto Carducci, Italy; Ph.D., University of Milan.
- JOHN S. QUINN (1959, 1949, 1956), Professor of Business Administration. B.S., State Teachers College, Salem, Massachusetts; M.C.S., Boston University; M.B.A., Harvard University; C.P.A.
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- THEODORE R. REINHART (1974, 1968), Associate Professor of Anthropology. A.B., Pennsylvania State University; M.A., George Washington University; Ph.D., University of New Mexico.
- EDWARD A REMLER (1970, 1967), Associate Professor of Physics. B.S., Massachusetts Institute of Technology; M.S., Columbia University; Ph.D., University of North Carolina, Chapel Hill.
- ELLIS E. REMSBERG, (1973, 1973), Adjunct Assistant Professor of Physics. B.S., Virginia Polytechnic Institute; M.S. and Ph.D. University of Wisconsin.²
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¹On leave of absence 1974-75.

²¹⁹⁷³⁻⁷⁴ only.

³On leave of absence 1974-75.

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- ROBIN L. ROARK (1968, 1968), Lecturer in Music. B.M., Oklahoma Baptist University; M.S., University of Southern California.
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- ASHOK P. SATHE (1973, 1973), Research Associate in Physics. B.Tech., Indian Institute of Technology; M.A., Columbia University.
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- HOWARD M. SCAMMON, JR. (1967, 1948), Professor of Theatre and Speech. A.B., College of William and Mary; M.A., Northwestern University.
- ELMER J. SCHAEFER (1973, 1973), Assistant Professor of Law. A.B., Northwestern University, M.A., J.D., Harvard University.

¹¹⁹⁷³⁻⁷⁴ only.

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- HARLAN E. SCHONE (1974, 1965), Professor of Physics. B.S., University of Illinois; Ph.D., University of California, Berkeley.
- JOSEPH LEE SCOTT (1970, 1970), Assistont Professor of Biology. A.B. and M.A., University of California, Santa Barbara; Ph.D., University of California, Irvine.
- JOHN E. SELBY (1970, 1963), Professor of History. A.B., Harvard College; M.A. and Ph.D., Brown University.
- KELLY G. SHAVER (1973, 1968), Associate Professor of Psychology. B.S. and M.S., University of Washington; Ph.D., Duke University.
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- JAMES A. SMITH, Major (1971, 1971), Assistant Professor of Military Science. B.S., Clemson University.
- JAMES E. SMITH (1973, 1970), Associate Professor of Business Administration. A.B., South-eastern Louisiana College; M.B.A., University of Houston; Ph.D., University of Arizona; C.P.A.

¹On leave of absence second semester.

²On leave of absence second semester.

- JERRY C. SMITH (1969, 1969), Assistant Professor of Modern Languages. A.B., University of Texas; M.A. and Ph.D., Cornell University.
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- JON F. SOEST (1974, 1967), Associate Professor of Physics. A.B., Pomona College; M.S. and Ph.D., University of Washington.
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- RAYMOND W. SOUTHWORTH (1966, 1966), Professor of Mathematics. B.S., Worcester Polytechnic Institute; M.Eng. and D.Eng., Yale University.
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- TERRY A. STRAETER (1973, 1973), Adjunct Assistant Professor of Mathematics. A.B., William Jewell College; M.A., College of William and Mary; Ph.D., North Carolina State University.
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- WILLIAM F. SWINDLER (1958, 1958), Professor of Law. A.B. and B.S., Washington University, St. Louis; M.A. and Ph.D., University of Missouri; LL.B., University of Nebraska.²
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- THADDEUS W. TATE, JR. (1969, 1961), Professor of History. A.B. and M.A., University of North Carolina; Ph.D., Brown University.

¹¹⁹⁷³⁻⁷⁴ only.

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- ELAINE M. THEMO (1971, 1966), Associate Professor of Sociology. A.B., Mount Holyake College; M.A., University of North Carolina; Ph.D., American University.
- CHARLES W. THOMAS, (1974, 1974), Adjunct Associate Professor of Sociology. B.S., McMurry College; M.A. and Ph.D., University of Kentucky.
- JOHN B. THOMAS (1971, 1971), Assistant Professor of Geology. A.B. and M.S., Miami University, Ohio; Ph.D., University of Oklahoma.
- DAVID W. THOMPSON (1970, 1967), Associate Professor of Chemistry. B.S., Wheaton College; Ph.D., Northwestern University.
- JAMES J. THOMPSON, JR. (1971, 1971), Assistant Professor of History. A.B., Columbia Union College; M.A. and Ph.D., University of Virginia.
- SUSAN THOMPSON (1974, 1974), Instructor in English. A.B., Dominican College; M.A., University of Texas.
- THOMAS E. THORNE (1965, 1940), Professor of Fine Arts. B.F.A., Yale University.
- JANET TOMLINSON (1969, 1965), Assistant Professor of Physical Education for Women. A.B., Beloit College; M.A., University of Iowa.
- LELAND E. TRAYWICK (1967, 1967), Professor of Business Administration. A.B. and M.A., University of Missouri; Ph.D., University of Illinois.
- F. DONALD TRUESDELL (1963, 1960), Professor of Music. B.M. and M.M., University of Michigan; A.M.D., University of Rochester.
- WILLIAM C. TURNER (1969, 1960), Associote Professor of Mathemotics. B.S., Furman University; M.A., Duke University.
- J. ALLEN TYLER, (1969, 1969), Assistant Professor of Modern Languages. B.S., Virginia Polytechnic Institute; M.A., Middlebury College; Ph.D., University of Virginia.
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- STEWART A. WARE (1972, 1967), Associate Professor of Biology. B.S., Millsaps College; Ph.D., Vanderbilt University.
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¹¹⁹⁷³⁻⁷⁴ only.

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- JAMES M. YANKOVICH (1974, 1974), Professor of Education. B.A., University of Richmond; M.Ed., University of Virginia; Ed.D., University of Michigan.
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- DAVID E. ZWERNER (1968, 1968), Instructor in Morine Science. B.S., George Washington University; M.A., College of William and Mary.



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- KATHRYN JOAN BLUE (1968, 1968), Assistant Catalog Librarian. B.A., Cornell College; M.A., University of Wisconsin.
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- MARY LOUISE BROWN COBB (1970, 1967), Catalog Librarian. B.A., Wake Forest College; M.L.S., George Peabody College for Teachers.
- MARGARET CELESTE COOK (1966, 1966), Curator of Manuscripts. B.A., Sweet Briar College; M.A., College of William and Mary.
- SARAH VIRGINIA GRAY (1964, 1964), Periodicals Librarian. A.B., Duke University; M.S. in L.S., University of North Carolina.
- HENRY DALE GRUNDER (1967, 1967), Curotor of Rore Books. B.A. and M.A., Miami University; A.M., University of Chicago.
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- LEAH RAE MIRON (1972, 1972), Assistant Catalog Librarian. B.A., Rice University; M.A., University of Denver.
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Health Service Staff

Richard D. Cilley, M.D. (1973, 1973)

B.S., Tufts University M.D., Boston University

Franklin A. Munsey, M.D. (1973, 1973)

Franklin A. Munsey, M.D. (1973, 1973) A.B. Dartmouth College

M.D. Boston University

Mrs. Bettye Bracey, R.N.

Mrs. Margaret Edmunds, R.N.

Mrs. Charlotte R. Bathurst, R.N.

Mrs. Gloria Birringer, R.N.

Mrs. Carol A. Gleason, R.N.

Mrs. Linda F. McCarthy, R.N.

Mrs. Linda N. L. Price, R.N.

Mrs. Betty A. Reymer, R.N.

Mrs. Lois Byrd

Mrs. Shelby Haynes

Director of Student Health Services

Assistant Director of Student Health Services

Head Nurse

Staff Nurse

O. CO.

Staff Nurse

Staff Nurse Staff Nurse

Staff Nurse

Staff Nurse

Staff Nurse

Medical Secretary

Clerk-Receptionist

II. STUDENT AFFAIRS

STUDENT LIFE

As a small, liberal, and modern university, William and Mary emphasizes the development of the student as a whole individual in an environment in which faculty, students, and administrators work closely together. The College is committed to the mission of liberal education and through all of its relationships seeks to promote a sense of community, encouraging an integration of the personal and academic lives of its members and providing the opportunity for each to participate in the governance of the institution.

The achievement of the educational purposes of the College is a responsibility shared by all elements of the College community. While the Board of Visitors, the President, and the administrative officers bear the ultimate responsibility and authority, a direct responsibility rests also on students and faculty to maintain on the campus, in the classrooms, and in the residence halls, the environment necessary for the pursuit of scholarly activities, the protection of the rights of others, and the assurance of the opportunity for personal growth and maturation. In the formulation and administration of rules of conduct, students express their responsibility by participation in Student Government, in the Honor Council, in Residence Hall Councils, and in the Discipline Committee.

THE HONOR SYSTEM

Among the most significant traditions of the College is the Honor System, officially established at the College in 1779 by Thomas Jefferson. The essence of the Honor System is individual responsibility in matters involving honorable conduct. This student-administered plan of discipline is an important part of the College's educational program and of primary importance to the life of the students. It helps to create an environment which is favorable to the individual's continued development of honorable traits and behavior, while providing sanctions against those who deviate from such conduct. The heart of the Honor System lies in individual responsibility and its effectiveness is dependent upon each student's acceptance of responsibility for the system. This means both a self-imposed discipline of honorable conduct and the refusal to tolerate dishonorable conduct among one's fellow students. The Honor System is administered by an elected council of students whose duty it is to help create, by a variety of educational means, an environment among students and faculty which is supportive of an effective Honor System, to investigate alleged honor offenses, and to conduct any necessary hearings or trials.

ORIENTATION

Prior to entry, the new student at William and Mary is assigned to a group of other new students, headed by an Orientation Aide selected from the upperclass students to facilitate adjustment to all aspects of the campus, and is introduced to the College life and atmosphere during the orientation period which takes place immediately before the beginning of classes in each semester. During this period the student is introduced to campus leaders and to key members of the administrative staff and is made familiar with the College facilities, the Honor System, and the complete range of extracurricular activities. An important part of the orientation period is the consultation between the entering student and the faculty advisor, who works closely with the student before registration and during the school year to assist in developing an academic program suitable to the student's interests and needs and consistent with the requirements of the College.

RESIDENCE

All freshmen and sophomore students, unless they commute daily from their homes (the homes of their parents or legal guardians), are required to live in College housing. Unclassified students and those carrying a part-time program of studies are not eligible for accommodations in College residences. All resident undergraduate students who are classified as freshmen, unless they have attended college for two semesters, are required to board in the College dining hall. For all other students, boarding in the dining hall is optional.

The College's dedication to the liberal education of the whole person is reflected in the program of residence hall life, through which each residential unit is viewed as a living-learning center whose goal is to enhance and enrich each student's educational experience on this campus. Meetings and programs of both an academic and a social nature are planned within each residence to supplement the student's regular sched-

ule of classes and scholarly pursuits.

The College has established the policy of self-determination in residence hall living. In this program, the students residing in each College residence hall have self-determination as regards their freedom of movement in and out of their own hall and in establishing policies for and administering such matters as visitation and the quality of the residence environment. Residential self-determination is consonant with the College's philosophy that education for responsible citizenship must reach beyond the classroom into the daily activities and decision-making of each student. Self-determination is an exercise in student responsibility, not only for one's self, but with regard for the rights and privacy of others.

Since an individual's actions in a community can have important effects on that community, it is required that each residence establish guidelines and procedures of governance for living which will both allow for individual freedom and insure the privacy and personal rights of others in the community. Students in residence halls exercise this responsibility and self-governance through the Residence Hall Councils.

The physical facilities of the College provide an opportunity for a number of different residential experiences. While the majority of William and Mary students live in the College's 17 residence halls, other facilities include an apartment complex, 9 so-

rority houses, 11 fraternity houses, and 5 special interest groups.

PROJECT PLUS—One of the main purposes of Project PLUS is to promote the integration of residential and academic aspects of the college experience. Each of the 84 resident students takes part of his academic work in courses taught within the building. Eligible to apply are all rising sophomores, juniors and seniors who exhibit in their applications a commitment and an ability to contribute to the Program as well as good academic standing. Applications are invited at the beginning of the second semester; the deadline is approximately one month later; the exact date will be announced. Participation in Project PLUS is normally limited to one year. The 1974-75 brochure is available on request from the Director of Honors and Experimental Programs. For further information see page 64 and page 162.

LANGUAGE HOUSES—A cultural and educational experience is provided through the Language Houses for an in-depth coeducational residence program for the study of foreign languages. The program consists of three distinct residences with extensive exposure to French, Spanish, and German language and culture. Immersion in the culture and attitudes of another country, in a congenial, everyday living experience, enables the student to master the language in a manner unattainable in the normal classroom situation. Each language unit contains 40 students and is staffed by one foreign national Resident Advisor. Participation in the program is open to all inter-

ested and qualified students, including non-language majors (see page 000).

ASIA HOUSE—Asia House is a new coeducational program for 32 undergraduates who have a special interest in the study of Asia. The primary requirement for resi-

dence is a strong interest in Asia, usually indicated by involvement in the academic study of some aspect of Asian culture. The Resident Director, who is a specialist in Asian studies, assists the students in planning a series of programs and activities concerned with all aspects of Oriental life, including art, music, politics, history, religion, and the culinary arts.

REGULATIONS

All internal rules, policies, and procedures are measured against the "Statement of Rights and Responsibilities of the College of William and Mary." One section of this document states:

"Each member of the College community has a right to privacy in his or her dealings with the institution, including, without limitation . . .

"The right to expect that all records of his or her association with the institution

are treated as confidential."

Therefore, the College does not automatically send to parents copies of grade reports nor notification of disciplinary or Honor Council decisions. Release of these records is made only with the written consent of the student involved.

Students, as citizens, enjoy the same rights and responsibilities as those outside the campus community. The College considers the observance of public laws of equal importance with the observance of its own regulations. Regulations governing conduct and student life have been promulgated and published in the handbook entitled, Student Life Policies, copies of which are made available to each student and which are incorporated by reference as an integral part of this catalogue. Included in this handbook are the following regulations:

PUBLIC PERFORMANCES

No person or group of persons shall either in Williamsburg or elsewhere represent the College in a public performance of any kind unless prior approval is obtained from the Office of the Dean of Students.

POSSESSION AND USE OF MOTOR VEHICLES

Students who have not completed the equivalent of four full semesters may not maintain automobiles on the College campus or in Williamsburg. This regulation does not apply to graduate or day students commuting from their homes or to students of age 21 or over. Exceptions to the regulation may be made only for essential employment, physical disability, or for other essential college-related needs. This special permission is to be secured from the Dean of Students. A student who brings an automobile to the campus without prior written approval, in anticipation of obtaining special permission, is in violation of this regulation. College regulations require that all motor vehicles operated on the campus, including motorcycles, be registered by the third day of classes.

The Transportation Control Board administers regulations governing registration of vehicles and parking and traffic on the College campus. The regulations, procedures, and penalties of the Board are set forth in the Motor Vehicle Regulations pamphlet available at the Office of the Dean of Students and the Campus Safety and Security Office.

EXTRACURRICULAR ACTIVITIES

There are several broad areas of student life and activities outside the formal academic program which, together with that program, comprise the whole educational experience of a student at the College of William and Mary. These general areas are the cultural, the social, the spiritual, and the athletic, ranging in specific activities from student government, publications, theatre, and musical groups, to participation in intercollegiate and intramural athletics. The College recognizes and encourages

these many activities as valuable elements in the student's life and lends support to

them through the Office of the Director of Student Activities.

Since William and Mary is chiefly a resident college, students and faculty compose a closely knit community in which extracurricular and social activities play a considerable role in the cultural and intellectual development of the individual. An informal relationship between teacher and student is encouraged, both in and out of the classroom, thereby fostering the process of living and learning together. The College is concerned to keep classes small and to ensure the possibilities of both a friendly, informal faculty-student association, and a rewarding, non-academic life whereby the individual's needs, interests, and identity are honored in a democratic way. The College believes that one of the major purposes is to inculcate by means of the several phases of college life the ideals of self-responsibility and good campus citizenship.

PHI BETA KAPPA SOCIETY

Alpha of Virginia: The Phi Beta Kappa Society, the oldest Greek-letter fraternity in the United States, was founded by a small group of students at the College of William and Mary on December 5, 1776. During the succeeding four years, the number of members increased to a total of fifty, including Captain John Marshall, who subsequently became Chief Justice of the United States, and Elisha Parmele, a graduate of Harvard University. The faith of these youthful scholars in the permanence and future greatness of their society was shown by their preparation of charters for branches in other colleges. Two such charters were entrusted to Elisha Parmele, who brought about the establishment of chapters at Yale in 1780 and at Harvard in 1781.

The original society at the College became inactive in 1781, with the closing of the College because of the approach of the army of Cornwallis. It was revived in 1851 with the blessings of an aged founder, William Short, and continued until early in the War Between the States. In 1893 the Alpha of Virginia Chapter was revived once again, and it has continued since that time as an active and significant element in the

educational program of the College.

At present, there are approximately 214 chapters of Phi Beta Kappa located at the leading educational institutions of the United States, with a membership in excess of 250,000. Members of the local chapter number more than 1,000 persons; in addition, a number of faculty members who were elected to Phi Beta Kappa at other institutions serve actively as affiliated members of Alpha of Virginia. Senior students up to 10 per cent of the total number in the class are elected each year, largely on the basis of scholarship, as members in course. From the College's alumni of at least ten years' standing who have attained distinction in their professions, alumni members are elected from time to time. Less frequently, honorary members and faculty members who are not graduates of the College are elected to membership.

HONOR SOCIETIES

Omicron Delta Kappa is an honorary fraternity comprised of junior and senior students selected on the basis of scholarship, service, and leadership in the various areas of college life.

Mortar Board is a woman's honorary society whose members are elected in their junior year on the three-fold basis of service, scholarship, and leadership.

Two national honor societies, Phi Eta Sigma for men and Alpha Lambda Delta for women, annually select for membership those freshmen who have attained academic distinction.

The F.H.C. Society, believed to be the first college fraternal organization in America, was founded at the College on November 11, 1750, and, as an active force on the campus, influenced the founding of two later fraternities, the P.D.A. Society in 1773 and the Phi Beta Kappa Society in 1776. The Society had a certificate and medal, originals of which are preserved in Swem Library, and counted among its members

Thomas Jefferson, James Innes, St.-George Tucker, and Bishop James Madison. The Society is dedicated to the preservation and continuation of the traditions of the Col-

lege.

Various honor societies serve to promote interest in special fields of learning. Members of these groups are elected on the basis of scholastic proficiency in the departments concerned. In addition, many students find opportunities for friendly and stimulating associations in the various special interest groups and departmental clubs devoted to such fields as literature, philosophy, drama, debating and the several fields of science.

STUDENT GOVERNMENT

Undergraduate student government is vested in the Student Association of the College of William and Mary composed of Executive, Legislative, and Judicial branches. The Student Association provides a large variety of social, informational, and other services to the student body and serves as a forum through which student interest can

be represented at all levels of the College community.

An Inter-Residence Hall Council serves to supplement the intellectual, social, cultural, and recreational programs of the separate residence halls and to achieve through a combination of resources a quality of programming which cannot ordinarily be achieved by residence halls acting separately. The students of William and Mary exercise self-governance through the Residence Hall Councils, organizations composed of elected officers of each residence and responsible for the social and recreational activities of the building, the maintenance and enhancement of an appropriate environment in the residence hall, and the administering and enforcing of rules and regulations established by the residents.

THE BOARD OF STUDENT AFFAIRS

The Board of Student Affairs consists of representatives of the student body, faculty, and administration. The 23-member body has full power to investigate any area of the College pertaining to student concerns and presents its opinions in the form of recommendations to the appropriate authorities. In addition, the Board has final authority over the allocation of the Student Activities' Fee.

SOCIAL LIFE AND ORGANIZATIONS

A varied social life is available to William and Mary students through the many functions and activities sponsored at the College. Most residence halls provide recreation rooms, study rooms, and lounges and sponsor social programs for the residents. As the meeting place of students on the campus, the Campus Center offers an educational and recreational program of events for the College community as well as opportunities for student participation in the presentation of that program. The facilities of the Center include lounges for informal gatherings, a television room, music listening rooms with stereophonic equipment, and a small cafeteria, "The Wigwam". Billiards, table tennis, and board games are also available. In addition, there are meeting rooms to house various interest groups and clubs, as well as a ballroom and theatre. The offices of the various student publications and Student Association are located in the Center. Films, lectures, craft and art exhibits, and concerts under the sponsorship of numerous campus organizations are regularly presented in the Campus Center.

Since the first Greek letter fraternity was founded at William and Mary in 1776, the College has had an unparalleled heritage as a background for its fraternity life. Today, the fraternities serve their members by providing an outlet for social expression, competitive athletics, and service to the College and community. The College-owned fraternity houses form a residential complex and each unit accommodates 33 men. There are chapters of 11 national social fraternities on the campus:

Kappa Alpha, Kappa Sigma, Lambda Chi Alpha, Phi Kappa Tau, Pi Kappa Alpha, Pi Lambda Phi, Sigma Alpha Epsilon, Sigma Chi, Sigma Phi Epsilon, Sigma Pi, Theta Delta Chi. Self-government within the fraternity system is encouraged through the efforts of the Interfraternity Council.

There are nine chapters of national sororities at the College: Alpha Chi Omega, Chi Omega, Delta Delta Delta, Gamma Phi Beta, Kappa Alpha Theta, Kappa Delta, Kappa Kappa Gamma, Phi Mu, Pi Beta Phi. The affairs of the sororities are administered and regulated by a chapter of the National Panhellenic Council. The sorority houses are owned by the College and each accommodates between 17 and 20 women, usually seniors. Each sorority carries out its respective national principles in the general realms of social congeniality, moral and mental standards, development of leadership, cooperation and service, and provides support for local and national philanthropy.

COLLEGE-WIDE READING PROGRAM

The College-Wide Reading Program is an attempt to foster a sense of community within the College that cuts across disciplinary lines. Each year, the Program selects a theme of current interest around which a list of readings, discussion groups, and outsider speakers is built. The Program also sponsors two weekend retreats a year, one each semester, which bring together faculty, students, and administrators to discuss problems related to the year's theme. Participation in the Program and its activities is open to all.

LECTURES, CONCERTS, AND EXHIBITIONS

The cultural life at William and Mary is rich and varied. Under the auspices of the Committees on Concerts and Lectures, the College seeks to provide its students opportunities for enjoying a wide range of public lectures and concerts.

As a charter member of The University Center in Virginia, Inc., the College participates in a cooperative Visiting Scholars Program which annually brings to the campus for public lectures, readings and seminars, a great many distinguished scholars in all fields of learning, renowned authors and artists, and leading figures in public life. Additional public lectures are sponsored by the Committee in cooperation with various departments of the College and the Student Committee on Concerts and Lectures. Prominent guests are also brought to the college by the College-Wide Reading Pro-

The Committee on Concerts annually offers to students, faculty, and area residents on a voluntary low-rate subscription basis the William and Mary Concert Series of from five to seven presentations by outstanding world-renowned artists of the professional concert stage. In recent years College audiences have enjoyed performances by John Ogdon, pianist, Pilar Lorengar, soprano, The Richmond Symphony, The Goldovsky Grand Opera Theater, and The Harkness Ballet of New York, to name a few. In addition, the Committee sponsors a Sunday Series without charge to bring to the campus other musical programs of greater variety and special interest.

Under the sponsorship of the Fine Arts Department and the Campus Center, traveling and purchasing exhibits in painting, sculpture, and architectural design, theatre and industrial arts are shown throughout each year. The final exhibition annually is devoted to the work of students in the Fine Arts classes. Once each year the Virginia Museum of Fine Arts presents on the campus a showing of original art by means of an

artmobile.

OTHER MUSICAL ACTIVITIES

The College offers to the student many musical opportunities for pleasure and cultural enrichment. Participation in the College Choir, Chorus, Band, Orchestra, and small vocal and instrumental ensembles is possible for interested and qualified stu-

dents. The Campus Center and College Library provide facilities for record listening. Faculty and students of the Music Department participate in the William and Mary Theatre presentations of musical productions. Each year the men's and women's music fraternities, Phi Mu Alpha Sinfonia and Delta Omicron form an opera company and mount a production of a Gilbert and Sullivan operetta.

The William and Mary Choir, a select and mixed group, sings choral literature carefully chosen from among the best available sources. Formal concerts on campus, in the community, and on tour are part of the annual Choir agenda. The William and Mary Chorus, which is a group of women students of the College, provides music for

various events on the campus and appears in formal concerts.

The College Band serves as a dual organization during the academic year. For the football season, the Band performs as a marching unit and is highlighted in pre-game and half-time shows, pep rallies, and parades, appearing at both home and away games. After the football season, the Band functions as a concert organization, presenting formal and informal concerts on campus and on tour.

The William and Mary College-Community Orchestra is an organization devoted to the study and performance of the best in orchestral music. The organization consists of a Chamber Orchestra and smaller ensembles made up from the more advanced players of the orchestra. In addition to the annual spring concert, the members are ac-

tive in many special performances in the community.

Private instruction is available for interested and qualified students in piano, organ, voice, strings, woodwinds, and brass. The Music Department sponsors student recitals each year in which advanced students are afforded the opportunity and experience of public performance.

The Backdrop Club, an all student organization, produces each year an original musical show staged and directed entirely by students. The Club through its efforts hopes to encourage the writing and production of original scripts by William and Mary stu-

dents.

THE WILLIAM AND MARY THEATRE

Now in its forty-ninth year, the William and Mary Theatre provides significant opportunities to students as members of The Theatre's audience or its participants. The staff is composed of five professionally trained members of the faculty of Theatre and Speech. Participation in all aspects of dramatic work is provided to students through a well-balanced curriculum in the Department of Theatre and Speech and through co-curricular activity.

Tryouts for plays are open to all students, not limited to Theatre Concentrators. Production crews are composed of members of classes in stagecraft, lighting, and design and costume, but student volunteers serve on committees of set construction, painting, sewing, making of properties, publicity, ushering, and box office management. Every production provides a learning process for everyone participating, on and off

stage

Annually four full-length plays are presented. The plays are carefully chosen to provide a variety of entertainment, dramatic experience, and cultural values. Among the plays recently produced are You Can't Take It With You, The Triol of the Cotonsville Nine, Ernest in Love, The Miser, Antony and Cleopotra, A Cry of Players, Brigadoon, The Trojon Woman, The Seagull, The House of Bernardo Albo, Anything Goes, and The Alchemist. Production styles vary from the proscenium to open staging.

In addition to The William and Mary Theatre's productions on the main stage of Phi Beta Kappa Memorial Hall, Director's Workshop and Premiere Theatre offer excellent opportunities for students to participate in theatre in the intimate Lab

Theatre.

ORCHESIS

The objective of Orchesis is to provide interested students, both men and women, the opportunity to choreograph and perform in dances for two concerts presented annually. Orchesis also seeks to stimulate interest in modern dance as an art form in the College and community at large through its programs which are open to the public without charge. The group participates annually in the Virginia College Dance Festival and hosts for its members at least one workshop session by a guest artist.

TELEVISION AND RADIO

The College operates a campus-limited, closed-circuit television facility and a non-commercial FM radio station, WCWM. Radio and Television have a two-fold purpose at William and Mary: the presentation of formal instruction and general information through these media, and curricular instruction of students in the practical application of broadcast principles.

All students are eligible for participation in the activities of WCWM, which is operated by student volunteers on an extracurricular basis, and opportunities are available in all phases of radio programming. Students also serve as crew for closed-cir-

cuit television productions through the Work-Study Program.

PUBLICATIONS

The Flat Hat is a weekly newspaper, edited and written by students, which reports,

analyzes, and provides commentary on campus life.

The William and Mary Review is published twice a year by a body of student editors and, as the College literary publication, contains short stories, essays, poems, and reviews.

The Colonial Echo, the College yearbook, is published annually by a student staff and serves as an illustrated chronicle of campus life.

The Publications Council is a group consisting of students, faculty, administrators, and community representatives and has the responsibility for the financial administration and the selection of the major editorial positions of the publications.

THE WILLIAM AND MARY DEBATERS

The Intercollegiate Debate Council is an organization which helps train students in the theory and use of argument through participation in competitive debate. Any student intercepted in debate is clirible to icin

dent interested in debate is eligible to join.

Teams from the Council annually attend thirty intercollegiate debate tournaments throughout the nation, including competition for the state and national championships. In addition, the Council endeavors to sponsor programs of interest to both the College and civic community, including the annual Marshall-Wythe Debate Tournament on the William and Mary campus.

The College of William and Mary is affiliated with Delta Sigma Rho-Tau Kappa Alpha national honorary forensic fraternity, the American Forensic Association, and

the Virginia Forensic Association.

MERMETTES CLUB

The purpose of the Mermettes Club is to promote interest in creative aquatics and to provide an opportunity for students to further their technical skills and creative talents in swimming. Mermettes presents an annual creative aquatics performance and, in addition, selected members participate in state, regional, and national symposiums and festivals.

ATHLETICS

The programs of intramural and intercollegiate athletics are organized and conducted as an integral part of the total education program at the College of William and Mary. These are designed to accommodate the interests and needs expressed by the students and are conducted for the benefit of its participants with maximum concern for their personal health, safety, and welfare.

Men's

The general supervision of intercollegiate athletics for men has been delegated by the President to a faculty committee. The College is a member of the Southern Conference, the ECAC, and the NCAA.

Varsity intercollegiate teams are offered the following sports: baseball, basketball, cross country, fencing, lacrosse, football, golf, gymnastics, rifle, soccer, indoor track, swimming, tennis, wrestling, and track and field. Freshmen are eligible for varsity competition in all sports.

Through the intramural program provision is made for participation in the following individual and team activities: badminton, basketball, bowling, free throws, golf, handball, horseshoes, softball, swimming, tennis, touch football, track and field, volleyball, and wrestling. League schedules and individual tournaments are arranged for residence hall, fraternity, and independent competition.

In William and Mary Hall, as well as the main floor which is used for intercollegiate athletic events, there are two auxiliary gymnasiums, a gymnastics room, a wrestling room, a weight room and training room. The building seats 10,700 for basketball events and houses offices for the entire physical education department faculty and athletic department staff.

In the George Preston Blow Gymnasium are two basketball courts, a swimming pool, two handball courts, volleyball courts, showers, lockers, and intramural offices. Cary Field provides for the following facilities: baseball field, stadium for football, track, and field athletics (seating capacity 15,000), practice fields for varsity and freshman football, and space for softball and intramural games.

Women's

The intercollegiate sports program for the more advanced and skilled student is under the direction of the Department of Physical Education for Women and the Committee on Athletics for Women. Competition among colleges at the state, regional, and national levels exists in basketball, badminton, fencing, field hockey, golf, lacrosse, swimming, track and field, tennis, and volleyball.

The intramural program provides competitive sport opportunities for those students who desire competition but do not care to participate in the intercollegiate sports program. The Women's Recreation Association, under policies and procedures established by the executive officers and under faculty leadership, regulates and directs the intramural program. All intramural activites are played on a residence hall and sorority team basis. Archery, badminton, basketball, bowling, bridge, softball, swimming, tennis, track and field, and volleyball are offered in the intramural program.

The Cornelia Storrs Adair Gymnasium provides facilities for fencing, badminton, volleyball, and basketball. The swimming pool and dance studios are located in this building, and the tennis courts are adjacent to the building. The women's athletic fields provide space for activities such as golf, hockey, lacrosse, and softball.

STUDENT PERSONNEL SERVICES

OFFICE OF THE DEAN OF STUDENTS

The Dean of Students and his staff provide a broad range of services to the students of the College. The Office has primary responsibility and concern for general student counseling, student rights and responsibilities, organizations and activities, student government, discipline, the Campus Center, and student residences. The Deans work closely with the members of the Faculty and Administration of the College to represent student concerns to them as well as to represent academic and administrative policies to the students.

THE DEAN OF STUDENTS administers and coordinates the Student Affairs pro-

gram and provides general counseling services to upperclass students.

THE ASSOCIATE DEAN OF STUDENTS FOR ADMINISTRATION develops and administers special programs, workshops, and retreats, provides special counseling programs for day students, handicapped students and other special groups of students, coordinates staff publications and provides basic administrative assistance to the Dean of Students.

THE ASSOCIATE DEAN OF STUDENTS FOR STUDENT DEVELOPMENT provides general group and personal counseling services to freshmen and transfer students, develops programs for new students which will assist their adjustment to college and their involvement in its programs, directs the orientation activities of the College, administers the College's social regulations and provides service and advice to its judicial organizations.

THE ASSOCIATE DEAN OF STUDENTS FOR CAREER COUNSELING provides personal counseling in the area of goal assessment, career decision-making and vocational preparation, plus a variety of resources including group counseling, testing facilities, a career information library, and a closely coordinated system of referral with other related services, such as Placement and the academic advisors.

THE ASSOCIATE DEAN OF STUDENTS FOR RESIDENCE HALL LIFE assigns students to rooms in the College's residences, selects, trains and supervises the residence hall staff, plans and implements programs and activities in the residences, organizes and assists the Residence Hall Councils, and provides general services in facilities planning and the development of policies which pertain to the residence halls.

THE ASSISTANT DEAN OF STUDENTS FOR RESIDENCE HALL LIFE assigns new students to rooms in the College residences, organizes and conducts the annual room selection lottery for upperclass students, processes all requests for room changes, and coordinates the summer residence hall program.

THE DIRECTOR OF THE CAMPUS CENTER coordinates the activities of the Campus Center to achieve the Center's objective of social education and service to the

College community.

THE ASSOCIATE DIRECTOR OF THE CAMPUS CENTER AND DIRECTOR OF STUDENT ACTIVITIES provides special services and advice to the student activities and organizations of the College (including its social organizations), maintains the College's activities calendar and assists in the planning and implementations of the Campus Center program.

STUDENT HEALTH SERVICES

The objective of the Health Services is threefold: (1) Improvement of the health of the students, (2) prevention or treatment of diseases, and (3) instruction of students in matters essential to healthful living.

The Health Service is housed in the new Student Health Center, a modern, fireproof building containing out-patient clinic, dispensary and waiting room, kitchen,

STUDENT PERSONNEL SERVICES

and eighteen bed in-patient facility.

A personal health history and complete physical examination form is required of all entering students. During each semester, each student who has (1) paid his or her health service fee, (which is included under "general fees") and (2) who has filed his or her completed Health Form with the Director is entitled to the use of the Health Service facilities. Undergraduates who are carrying at least 12 credits and graduate students carrying at least 9 credits are eligible by virtue of having been charged the Health Service fee under the aforementioned "general fees". The medical services are as follows:

1. Medical care in the Health Service Clinic for most illnesses and accidents. Necessary drugs and dressings are included as much as possible.

2. Health consultation service with the medical staff during those days that school is formally in session.

Special medical examinations for certification for participation in inter-collegiate athletics and other forms of strenuous activity sponsored by the school.

4. Hospitalization in the Health Service Center for a limited period for illness when advised by one of the college physicians. The college does not, however, assume the cost of special care nurses, consulting physicians where needed (including psychiatric care), surgical operations, X-rays, and any laboratory procedures that cannot be done directly through the Health Service facilities. Also, care in other hospitals and certain special medications that are not stocked in the Health Service pharmacy are the responsibility of the student or his family or his or her supplementary insurance coverage. Meals while in the infirmary are charged to the student at the prevailing dining hall rate.

5. A special, low-rate group insurance to help cover some of the cost of these "extra-Health Service" costs is available through the Treasurers Office.

The College Health Service provides the services listed above, but it lacks facilities for prolonged or specialized care. It can offer some post-operative care at the discretion of the operating surgeon and where it is to the advantage of the student financially and academically. Students who have legitimate medical reasons will be permitted to withdraw from the College for those reasons without prejudice to their academic records.

All relationships between student and physicians are confidential, and at no time do the results of diagnosis and treatment become part of a student's permanent college record. No information concerning an individual's contact with the Health Service will be released without his or her written permission. At the same time, a free interchange of information is encouraged between the physician and the student in both directions on any matter regarding his or her health.

THE CENTER FOR PSYCHOLOGICAL SERVICES

The Center for Psychological Services, located in Rogers Hall. Room 110, offers professional assistance to students, staff, and faculty in the area of personal counseling and psychotherapy, dealing with problems of social relationships and the understanding of oneself and others. Staff members work with clients on an individual, couple, family or group basis, depending on the particular need. These services are free of charge and are provided by experienced clinical psychologists who are also members of the faculty. All relationships between counselors and clinicians are strictly confidential, and at no time do the results of counseling become part of a student's permanent college record. No information concerning an individual's contact with the Center will be released without his written permission.

In addition to psychological testing that is part of the counseling process, the Center serves as a regional testing center for certain nationally administered examinations. Among these are the Graduate Record Examinations, the Law School Admission Test, the Medical College Admission Test, the Miller Analogies Test, and the Graduate

STUDENT PERSONNEL SERVICES

School Foreign Language Test. Application forms and additional information con-

cerning these examinations can be obtained at the Center.

Staff members of the Center for Psychological Services are also available for consultation with faculty, administration, residence personnel, and students, either individually or in groups. Appointments for individual counseling or for consultation can be made in person or by calling the Center.

OFFICE OF CORPORATE RELATIONS AND PLACEMENT

The College maintains an Office of Corporate Relations and Placement for students and alumni through which non-teaching placement may be obtained. Seniors are assisted in obtaining employment with business and industrial organizations and with governmental agencies. These same services are extended to alumni who are seeking to secure new employment. Educational placement opportunities are handled by the Teacher Placement Office in the School of Education. An office of placement for law graduates is located in the Marshall-Wythe School of Law.

Placement files are developed for seniors and are maintained for several years after graduation. Alumni may refer employers to these files at any time. Company representatives are invited to the campus to confer with seniors and to discuss not only the qualifications necessary for success in their special fields, but to explain business opportunities and to make job offers to graduates. Cordial relationships are maintained with many employers and their representatives are given every assistance in

recruiting programs.



FINANCIAL ASSISTANCE AND ACADEMIC SCHOLARSHIPS FOR STUDENTS

FINANCIAL AWARDS FOR STUDENTS

The Office of Student Financial Aid administers two types of financial awards to students matriculating at the College of William and Mary: (a) financial assistance and, (b) academic scholarships. Complete information concerning financial aid is contained in the pamphlet, "How to Apply for Financial Aid." Requests for this information and all correspondence regarding financial awards should be addressed to:

Director Office of Student Financial Aid College of William and Mary Williamsburg, Virginia 23185

FINANCIAL ASSISTANCE

Financial assistance is available to students who cannot otherwise meet the cost of an education at the College. Such assistance, when added to the contributions that can reasonably be expected from the student, his family, and any available outside sources, should enable him to meet the costs of attending William and Mary.

This assistance is awarded for one year only, but may be renewed annually if need continues and the student otherwise qualifies. Undergraduates qualify for financial aid on the basis of academic ability, willingness to obey the rules and regulations of the College, and demonstrated financial need.

Three forms of financial assistance are "packaged" to meet the need of a student—assistance grants (scholarships), loans, and part-time employment.

Tronsfer Students should adhere to the same application procedures as entering students

Graduate Students may apply for assistance in the form of loans (subject to funds) and part-time work through the Student Aid Office. Scholarships, assistantships, and fellowships are awarded through the Office of the Dean of the School or Chairman of the Department in which the student intends to enroll.

Employment for Spouses of regularly enrolled students is also available as part of the College's overall financial assistance program. Inquiries concerning this type of employment should be directed to the College's Director of Personnel, rather than the Student Aid Office.

Demonstrated financial need is established through analysis of the applicant's "Parents' Confidential Statement" by the College Scholarship Service. Filing the PCS is the only action an entering student must take. The PCS may be obtained from high school guidance office, CSS, or the Student Aid Office. Resident students may secure applications from the Student Aid Office.

Deadlines for filing PCS with CSS for "Early Decision" applicants is November 1. For "Regular Admissions" applicants the deadline is February 15. For students in residence the deadline is May 1.

A brief description of the forms of financial assistance follows. Additional information may be found in the "Register of Scholarships and Fellowships of the College of William and Mary," copies of which may be consulted at the Student Aid Office and the Library.

Assistance Grants and scholarships are made possible through the generosity of friends and alumni of the College. A list of the benefactors of William and Mary who have established scholarships, assistance grants, loan funds, and awards is included

FINANCIAL ASSISTANCE FOR STUDENTS

at the end of this section.

Other assistance grant/loan funds are made available through the Legislature to residents of the Commonwealth of Virginia who apply separately to the State Council on Higher Education in Virginia. Federally funded programs currently include the Basic Educational Opportunity Grant (BEOG), which requires a separate application; the National Direct Student Loan (NDSL); Supplemental Educational Opportunity Grant (SEOG); Guaranteed Student Loan (GSL); and the College Work-Study Program (CWSP).

Part-Time Employment includes jobs at the College and in the city of Williamsburg. Colonial Williamsburg makes possible much part-time employment through the Student Aid Office. In order to maintain proper balance between hours of employment and academic loads, the College requires that all student employment on the campus or in the city be assigned by the Director of Student Aid. The normal work load is fifteen hours per week, with no student working more than twenty hours per week without permission from the Director.

out permission from the Director.

ACADEMIC SCHOLARSHIPS

Merit Scholorships are awarded solely on the basis of academic achievement to the nineteen ranking scholars of the College and are not available to entering students.

Virginia Teacher Scholarships are available to students who are residents of Virginia and plan to teach in the Virginia public schools. These scholarships are valued at \$450 per academic year. Address all inquiries on this program to Director of Educational Placement, School of Education, College of William and Mary, Williamsburg,

Virginia 23185.

Foreign Exchange Scholarships include the University of Exeter and University of St. Andrews and the Drapers' Company awards. Each year two outstanding graduates of William and Mary will be selected by the College for a two-year period of study at Oxford, Cambridge, or another British university. This opportunity is made available by agreement between William and Mary and the Drapers' Company of London. In exchange one or two British students will be selected by the Drapers' Company for undergraduate study toward a bachelor's degree at the College of William and Mary.

The cost of tuition and living expenses is provided for each student.

The College of William and Mary also has an agreement with Exeter University in England and the University of St. Andrews in Scotland for an annual exchange of students. Under this plan an outstanding William and Mary student is given the opportunity to study at one of the universities for one year. One student will be selected for each university. The Exeter scholarship is open to students who are rising juniors or who are members of the graduating class; the St. Andrews is available only to rising juniors. All college fees (tuition, registrations, room and board) will be waived for these exchange students. They will live in one of the Residence Halls of Exeter or St. Andrews. One student from Exeter and one from St. Andrews will come to the College of William and Mary for the same period.

Special Scholarships are awards made by various departments within the College to students who demonstrate outstanding academic achievement during the year.

These scholarships are not usually available to entering students.

Programs for Federal Beneficiaries are administered by the College for certain eligible students. These programs include Veterans' Educational Assistance, Children's Educational Assistance, Social Security Benefits for school children, and others. Persons who are qualified for such programs should work out the details with the appropriate federal agency prior to registration at the College.

III. Academic Regulations and Requirements

ADMISSION TO THE COLLEGE

Within the limits of its facilities and its obligations as a state university, the College of William and Mary opens the possibility of admission to all qualified students without regard to sex, race, color, age, religion, or national origin.

UNDERGRADUATE ADMISSION

Students wishing to attend the College of William and Mary should obtain application forms from the Office of Admissions. Applications are due by February 1 for the fall semester and December 1 for the spring semester. All applications received on time will be given equal consideration; after these dates, they will be evaluated in terms of the admissions space situation at the time of application. No one will be admitted, either as a degree candidate or as an unclassified student, later than one week before registration.

FRESHMAN ADMISSION

Although all are invited to apply, the College must be selective due to the large number of applications received each year. In this process of selection, two important considerations are the potential benefit of the College to the student, and the student's potential contributions to the College community. Although a secondary school diploma is required, no specific program is prescribed as an absolute prerequisite for admission. However, the student's secondary education should serve as a preparation for the beginning course of study offered by the College and for a smooth adjustment to life in the College community. Successful William and Mary students have tended to perform well in pre-college years, both scholastically and on standard examinations. Many have wide-ranging interests; many others have intensely developed a single special interest or talent. Evidence of imagination, tenacity, good character, and intellectual curiosity are all considered indicators of promise in academic matters and satisfaction in the college experience. The College desires to incorporate into its community a wide variety of backgrounds, attitudes, and interests.

Tests of the College Entrance Examination Board

Freshman applicants are required to take the College Entrance examination Board Scholastic Aptitude Test and three Achievement Tests, including the one in English composition. Students can meet the College's foreign language requirement either by completing four years of one foreign language in secondary school or by scoring 600 or above in the Achievement Test in a modern foreign language. Applicants intending to continue the foreign language begun in secondary school must take the reading Achievement Test in a foreign language. Students who have completed secondary school courses in Chemistry or Physics and who wish to be placed in advanced sections of these courses should take the Achievement Tests in these areas. All College Entrance Examination Board tests should be taken no later than January of the final year in secondary school.

No minimum scores are required, as test results are always combined with other information for help in determining a student's academic potential for admissions, and for advising and placement. Information about these tests may be obtained from secondary schools or from the College Entrance Examination Board, Box 592, Princeton, New Jersey 08540 or Box 1025, Berkeley, California 94701. The applicant should

request that his scores be reported directly to the College.

ADMISSION TO THE COLLEGE

Interviews

Interviews are not generally required by the Office of Admissions, and the lack of an interview will not affect a student's application. Visitors are welcome, however. Students and their parents may participate in a group information program, held through most of the year at 10:00 a.m. and at 2:30 p.m. weekdays, and at 10:00 a.m. on Saturdays. (During November, February; and March, peak months for application review, these sessions are not usually held weekday mornings. During June, July, and August, the Office of Admissions is closed on Saturdays.) Students who want to attend an orientation session should advise the receptionist in the Office of Admissions of the date and time they expect to be on campus.

Early Decision Plan

The College admits a limited number of freshman students under the Early Decision Plan. This plan is designed to ease the admissions process for students who are highly qualified and who are willing to commit themselves to an acceptance if admitted. Early decision applicants not selected under this plan will be considered along with other applicants for available spaces under the regular admission process.

Students wishing to be considered for Early Decision should take the Scholastic Aptitude Test before the beginning of the senior year and the Achievement Tests no later than January of the final year in secondary school. Before November 1 of the senior year, an application with letter of intent, secondary school record, and Scholastic Aptitude Test scores should be submitted. The Office of Admissions announces its decisions on December 1, and accepted students must signify their final intention to enroll in the College by paying a nonrefundable deposit by January 1.

Early Admission

The College is willing to admit a limited number of students with outstanding records as freshmen at the end of their junior year in high school. Because the selection of such students must include a careful evaluation of maturity and academic need as well as ability, an interview is encouraged though not required. Such students are encouraged to seek diplomas from their high schools after completing their freshman year.

Concurrent Courses

In addition to full early admission, the College also allows highly qualified local high school students to take a course for college credit during each semester of their senior year. Applications for this privilege should come through the high school administrations, who will give initial approval.

Admission of Undergraduate Transfer Students

Transfer students are admitted for both the fall and the spring semesters. To be considered for admission, the applicant must have maintained at least a 1.5 grade point average on a 3.0 scale (2.5 on a 4.0 scale) in courses taken for credit in other institutions. All transfer students considered for admission to the College must be in academic and social good standing at their last institution or institutions. Transfer students are considered in relation to other applicants for the available spaces, in order to admit students with the strongest overall qualifications. Students who have completed fifteen or more semester hours of work at an accredited institution are not normally required to take the Scholastic Aptitude and Achievement Tests of the College Entrance Examination Board.

Admission to Unclassified Status

A student who does not intend to pursue a degree but wishes to take courses for credit during the day session may apply for admission as an Unclassified student. Stu-

ADMISSION TO THE COLLEGE

dents admitted to Unclassified status later wishing to become candidates for an undergraduate degree must submit a petition to the Office of Admissions before completing 30 semester hours, the maximum number applicable in this status. The minimum requirements for admission is the same as for those seeking degree status. A student once admitted as a degree candidate at the College is not eligible to be considered for admission as an Unclassified student. Students who wish to have Unclassified status should specify this in requesting application forms from the Office of Admissions.

Readmission

Students who are in good standing with the College but have not been in attendance in the day session for one or more semesters must submit an application for readmission and be readmitted by the Office of Admissions before they are permitted to register for classes in the day session. Former students who apply before February 1 for the fall semester and before December 1 for the spring semester will be given priority consideration for space available.

Reinstatement

Students who are not in good standing with the College but who wish to seek readmission to the College of William and Mary or to transfer to another institution must submit a petition for reinstatement in good standing to the Chairman of the Committee on Academic Status.

Reinstatement in good standing and readmission are not automatic, but at the end of certain specified periods the student is eligible to seek these considerations from the Committee on Academic Status and the Office of Admissions respectively. A student who is asked to withdraw in February for academic deficiency may apply no earlier than April of the same year for reinstatement and for readmission to be effective in September. A student who is asked to withdraw in June or during the Summer Session may apply no earlier than November for reinstatement and for readmission effective in February. Applications should be made well in advance of registration for the fall and spring terms. For further information write to the Chairman of the Committee on Academic Status.

Notification of Decision

All applicants are considered in relation to each other. For this reason, all notification letters are sent at the same times; those interested in Early Decision will learn of the decision by the Office of Admissions on December 1; those wishing regular admission for the fall semester, on April 1; and those wishing to attend the spring semester, around December 15.

Delayed Enrollment for Admitted Freshmen

Students who are offered admission to the freshman class may postpone their enrollment for one year. Admitted freshmen who choose this option must submit a form requesting that their application be reopened by the following February 1 for the fall semester, or December 1 for the spring semester. These students will be guaranteed space if they satisfy previous requirements made as conditions of their original admission. They must have an honorable record in the intervening year. Assurance of future admission does not apply to students who enroll in a college or university during the intervening period; in such cases, it will be necessary to consider the student as a transfer applicant.

Admission to Audit Status

Students who wish to audit courses in the day session with no credit should contact the Office of the Dean of the Faculty of Arts and Sciences to obtain the appropriate forms for permission to audit.

ADMISSION TO THE COLLEGE

Admission to the Evening College and Summer Sessions

Applicants should write to Director, Evening College and Summer Sessions for a catalog and application form. The admission to one of these divisions of the College does not entitle the student to admission to the regular day session or degree status unless an application is submitted and approved by the Office of Admissions.

UNDERGRADUATE ADMISSION TO THE SCHOOL OF BUSINESS ADMINISTRATION

Applicants must be admitted to the College prior to admission to the School of Business Administration. Application for admission to the School and its B.B.A. degree program is accepted the semester prior to the time the students expects to enroll in the School of Business Administration as a candidate for the B.B.A. degree but full admission will not occur until all requirements for admission are met.

UNDERGRADUATE ADMISSION TO THE SCHOOL OF EDUCATION

Applicants must be admitted to the College prior to admission to the School of Education. Applications for undergraduate concentration are accepted the semester prior to the time the student expects to enroll in the School of Education as a concentrator. Final approval for admission will not be given until the student has attained junior standing in the College.

ADMISSION TO GRADUATE STUDY

For admission requirements for graduate and professional study consult the Graduate Catalog of the Faculty of Arts and Sciences and the School of Marine Science, and the Catalogs of the School of Business Administration, the School of Education, and the Marshall-Wythe School of Law.

Application forms for admission to graduate study under the Faculty of Arts and Sciences should be requested from the chairman of the department in which the applicant intends to do his major work, or for admission to the applied science program from the Director of the Graduate Program in Applied Science. Forms for admission to graduate study in the School of Education should be requested from the Director of Graduate Studies, School of Education; to the Master of Business Administration program from the Associate Dean for Graduate Studies, School of Business Administration; and to the law school from the Marshall-Wythe School of Law (Admissions). All of the above may be addressed at the College of William and Mary, Williamsburg, Virginia 23185.

Inquiries regarding the graduate program in marine science should be directed to the Dean of the School of Marine Science, Virginia Institute of Marine Science, Gloucester Point, Virginia 23062.

THE COLLEGE RESERVES THE RIGHT TO MAKE, WITH THE APPROVAL OF THE PROPER AUTHORITIES, CHANGES IN TUITION AT ANY TIME

Payment of Accounts

Tuition, and room and board fees are payable in advance by the semester, remittance being made by check drawn to the College of William and Mary.

Students will not be allowed to complete registration unless their registration cards have first been approved by the Treasurer's Office. This preliminary procedure can be accomplished by mail and should be completed upon receipt of student's statement of account.

First and second semester accounts are due within 20 days after receipt of statement of charges.

Refunds to Students Withdrawing

Subject to the following regulations and exceptions, all charges made by the College for room, board and fees are considered to be fully earned upon the completion of registration by the student.

1. A student withdrawing within a period of five days after the scheduled registration period is entitled to a refund on charges except that \$25.00 shall be retained by the College to cover the expense of registration. (These refunds shall not include any deposits or advance payments that may have been required by the College as evidence of the student's intention to enroll.)

2. A student withdrawing at any time within the first 30 days after the scheduled period of registration shall be charged 25 per cent of all these charges: the semester's room rent, or the required deposit, whichever is greater, and tuition.

3. A student withdrawing at any time within the second 30 day period after the scheduled registration shall be charged 50 per cent of all of these charges: the semester's room rent and tuition.

4. A student withdrawing at any time after 60 days following the date of registration shall be charged the full semester's board, room rent, and tuition.

5. No refunds of board, room, and tuition will be made to a student who has been required to withdraw by the College regardless of the date of withdrawal.

6. Tuition, room rent, and board are earned in full for unofficial withdrawals.

7. No refunds will be made on tuition for part-time students.

8. In cases of withdrawal during the first 60 days from College, charges for board will be calculated on a pro-rated basis determined by the date of official withdrawal provided the dining hall card is surrendered to the Treasurer's Office on this date.

Credits on Accounts of Scholarships Holders

Students holding scholarships are required to pay all fees less the value of the scholarship which they hold.

Withholding of Transcripts and Diplomas in Case of Unpaid Accounts

Transcripts or any other information concerning scholastic records will not be released until college accounts are paid in full. Diplomas will not be awarded to persons whose college accounts are not paid in full.

Cashing of Student Checks

The College does not have facilities for handling deposits for students' personal expenses but the Treasurer's Office is prepared to cash checks up to \$25.00. All such checks should be made payable to the student or to cash. Under our regulations as a

State institution, we are not permitted to cash checks made payable to the College of William and Mary.

TUITION AND OTHER EXPENSES

Tuition (\$457.00 per semester for State Students and \$1106.00 for Out-of-State Students) is a payment towards the general maintenance and operating costs of the College including recreational and health facilities. (Board and room charges are additional.)

The Act affecting residency is as follows:

"Be it enacted by the General Assembly of Virginia, That no person shall be entitled to the admission privileges, or the reduced tuition charges, or any other privileges accorded only to domiciliaries, residents or citizens of Virginia, in the State institutions of higher learning unless such person is and has been domiciled in Virginia for a period of at least one year prior to the commencement of the term, semester, or quarter for which any such privilege or reduced tuition charge is sought, provided that the governing boards of such institutions may set up additional requirements for admitting students."

A person who enrolls in any such institution while not domiciled in Virginia does not become entitled to admission privileges, or reduced tuition charges or any other privileges accorded only to domiciliaries, residents or citizens of Virginia by mere presence or residence in Virginia. In order to become so entitled, any such person must establish that, one year before the date of his alleged entitlement, he was at least eighteen years of age or, if under the age of eighteen, he was an emancipated minor, and he obandoned his old domicile and was present in Virginia with the unqualified intention of remaining permanently in Virginia after leaving such institution. The burden of establishing these matters by convincing evidence is on the person alleging them.

Notwithstanding marriage to a person who is not domiciled in Virginia, a person who is classified or classifiable at the date of his or her marriage as eligible to receive the privileges herein described, may receive or continue to receive such privileges until he or she abandons his or her Virginia domicile other than through any presumption of law attaching to the ceremony of marriage.

Procedure for Determination of In-State Tuition Eligibility

I. Application for In-State Tuition Eligibility

The Treasurer or his delegate shall provide appropriate forms to be completed by all persons who wish to claim eligibility for in-state tuition. Such forms shall be prepared and from time to time revised in consultation with the Chairman of

the Status Appeals Board.

A. Entering Students—Such forms shall be furnished to entering students claiming eligibility for in-state tuition prior to their matriculation, and shall be completed and returned by them to the Treasurer's Office. A student to whom such a form was sent who fails to complete and return such form by the close of the add-drop period shall be deemed to have waived classification as an instate student for the semester involved. A student claiming entitlement to instate tuition to whom such a form was not furnished and to whom a bill for non-resident tuition was mailed or given, shall, on or before the close of the add-drop period, request such form and complete and return it within three calendar days of its being furnished him. Failure to do so shall likewise be deemed a waiver of classification as an in-state student for the semester involved.

- B. Matriculated Students—Matriculated students who have been classified as ineligible for in-state tuition shall remain in that classification until changed. A student desiring a change in classification shall, not later than five calendar days after the first day of classes of the semester for which the change in status is sought, request the appropriate form from the Treasurer's Office and shall complete and return such form within ten calendar days of its being furnished him. His failure to do so shall be deemed a waiver of classification for in-state tuition status for the semester involved.
- II. Initial Evaluation of Application for Classification
 The Treasurer or his delegate shall initially evaluate all requests for in-state tuition classification or re-classification and shall, where the student's eligibility for in-state tuition is clear within the meaning of Section 23-7 of the Code of Virginia, approve such classification and inform the student of such approval either by letter, or by bill or amended bill reflecting such determination. Where the student's eligibility for in-state tuition is not clear, the Treasurer, or his delegate, shall refer the matter to the Status Reviewing Officer. A student who receives an adverse decision by the Treasurer may, within ten calendar days by written request, obtain a hearing by the Status Reviewing Officer.
- III. Review by the Status Reviewing Officer The Status Reviewing Officer, who shall be appointed by the Executive Vice President, and shall be legally trained, shall consider all status determinations as are referred to him pursuant to Section II above, and make such determinations as he may deem proper under Section 23-7 of the Code of Virginia, and shall communicate such determination in writing to the student with a copy to the Treasurer's Office. If the determination be favorable to the student, the Treasurer's Office may have five calendar days in which to request an appeal, which request shall be addressed to the Chairman of the Status Appeals Board. If the determination is unfavorable to the student he may, within 10 calendar days, request in writing an interview with the Status Reviewing Officer which shall be awarded him, and at which time the student may be accompanied by counsel and may present such evidence or explanations as he deems appropriate. The Status Reviewing Officer shall thereupon or as soon thereafter as is reasonably possible, and with due regard to matters brought out at the interview, affirm or modify his previous determination and inform the student of his action. If the matter is again determined adversely to the student, the Status Reviewing Officer shall inform the student of his right to appeal to the Status Appeals Board, which appeal must be made within 10 calendar days of the date of the final determination by the Status Reviewing Officer. Failure of any student notified of an adverse determination to request an interview or make an appeal within the time limits provided herein shall be deemed a waiver of classification for in-state tuition for the semester involved, unless a satisfactory excuse for the delay is presented and accepted by the Chairman of the Status Appeals Board.
- IV. Appeal

 The Status Appeals Board shall consist of three persons of faculty rank, none of whom shall be employed by the offices of the Vice President for Business Affairs. They shall be appointed by the Executive Vice President, who shall also designate a Chairman. Appeals to the Board shall be in writing and addressed to the Chairman and need take no particular form. The Chairman shall, upon receipt of an appeal, schedule a hearing at a time convenient to the parties, and shall, in addition to consideration of whatever documents are deemed relevant, consider such statements as the appellant may wish to make and such evidence, oral or otherwise, as he may present. The hearing shall not be a review of the findings of

the Status Reviewing Officer, but a hearing de novo. A student appellant may be represented by counsel.

However, the Chairman may invite the Status Reviewing Officer to appear and communicate his evaluations and observations and/or may request a written statement from the Status Reviewing Officer regarding the reasons for his determinations. Upon completion of the hearing, the Board shall make such determination as is deemed proper and communicate the same in writing to the appellant with reasons therefor. The determination of the Board shall be dispositive of the matter unless, in the case of a student appellant, an appeal is made in writing to the President within 5 calendar days of the determination by the Appeals Board. The President, or his impartial delegate acting in his behalf, in considering the appeal shall review only the documentary data involved unless an interview with the student is deemed appropriate. The President or his delegate shall thereupon decide the matter and make the final decision.

Boord

The College operates two cafeterias, together seating over 1300 persons. The Dining

Commons and Wigwam Snack Bar are not operated for profit.

All students who are officially classified as freshmen and who are dormitory residents (including residents of the College-owned sorority and fraternity houses) will be charged for board at the rate of \$303.00 per student per semester. (Students entering for orientation, will be charged an additional \$12.00.)

Each freshman will be issued a Dining Commons Card which entitles that student to three meals daily for a period of approximately 120 days during the semester. The Christmas and Thanksgiving recesses during the first semester and the spring recess in the second semester are not included in the 120 days for which board is charged.

The Dining Commons Card will be usable in the Wigwam (Coffee Shop) on an an-

nounced basis.

Freshmen are required to board in the College Dining Commons on a seven-day, twenty-one meal plan. It is optional for students not living in student residences and students other than freshmen whether they board in the College Dining Commons. All others may elect to board by the semester in the Dining Commons in which case the charge for board will be \$303.00 per student per semester for the seven-day, twenty-one meal plan or \$242.00 per student per semester for the five-day, fifteen-meal plan.

In cases of withdrawal during the first 60 days from the College, the student will be given a refund calculated on a pro-rata basis determined by the date of official withdrawal, provided the Dining Commons Card is surrendered to the Treasurer's Office

on this date.

Owing to uncertain conditions prevailing with respect to the cost of food supplies and of food service, the College reserves the right to change its rates for board at any time throughout the year to meet such additional costs.

Room Rent

Room rent in the student residences varies from \$260.00 to \$340.00 per semester depending on the size of the room, location, bath, etc. Living in student residences is optional only for juniors and seniors.

The College student residences are not open for occupancy during the Thanksgiv-

ing, Christmas, and Spring Recess periods.

Students Withdrawing from College Facilities: A student who continues enrollment in College, but who withdraws from College facilities at any time following the date

¹ For boarding purposes "Freshmen" is interpreted to mean those students in their first year of residence in College.

of the semester registration, will receive no refund for the semester's room rent. This regulation will apply to all students regardless of the reasons for their withdrawal from College dormitory facilities.

ESTIMATE OF SEMESTER EXPENSES

	Low	Medium	High
Board	\$303.00	\$303.00	\$303.00
Tuition and General Fee (State Student)	457.00	457.00	457.00
Room Rent	260.00	300.00	340.00
Totals	\$1020.00	\$1060.00	\$1100.00

INCIDENTAL EXPENSES

It is impossible to estimate the exact cost to students of clothing, travel and incidental expenses. These are governed largely by the habits of the individual. The College endeavors to minimize temptation to extravagance. The size of Williamsburg aids materially in this matter by not subjecting the students to the diversions of a larger city. As the demands for extra money are small, parents are advised to furnish only a small sum.

The cost of books depends somewhat on the courses taken, but will seldom be less than \$125.00 a year and does not usually exceed \$175.00 a year.

Money for books cannot be included in checks covering college expenses; books should be paid for in cash or by separate check when purchased. Checks for books should be made payable to the William and Mary Bookstore.

NON-RECURRING FEES

Application fee	\$20.00
Room deposit	50.00
Room Damage Deposit	75.00
Orientation Fee (freshman only)	12.00
Room change penalty fee	25.00
Diploma fee	10.00
Cap and gown rent, bachelor and master candidates	5.00
Cap and gown rent, doctoral candidates	6.00
Academic hood rent to Seniors and Graduate students	1.00

Application Fee—A non-refundable processing fee of \$20.00 is required with undergraduate freshmen and transfer applications for admission to the College. This fee is not credited to the student's account. Students applying for admission from Christopher Newport and Richard Bland Colleges are excluded from payment of this fee.

Room Deposit—A non-refundable deposit of \$50.00 is required by the College for a student to reserve a room. This payment is made to the Treasurer's Office and is applied to the student's rent account.

This deposit may be made by students already enrolled at any time after the beginning of the second semester, but must be paid before March 8. No rooms will be reserved for students who have not paid their room deposit by the specified date.

Students enrolling for the first time may not make a room reservation deposit until they have been notified of their admission to the College.

Room Domoge Deposit—This deposit is refundable upon leaving College housing, subject to assessments.

¹ For out-of-State students add \$649.00

Room assignments for students will be made through the Office of Residence Hall Life. Assignments will be made by lottery.

Room Change Penalty Fee—Students who change rooms without the approval of the Office of Residence Hall Life will be charged a penalty of \$25.

Diplomas—The charge for diplomas for all degrees is \$10.00. This is payable on or before May 10.

Academic Costumes—Senior and Graduate students may procure caps and gowns from the College rental supplier just prior to graduation. Rental fee, payable to the supplier, is \$5.00 for bachelor and master candidates, 6.00 for doctoral candidates. Academic hoods will be provided to all degree recipients by the College just prior to graduation at a rental fee of \$1.00. All fees are payable upon receipt of the items mentioned.

APPLIED MUSIC

One hour of group instruction per week One 30-minute lesson per week \$44.00 108.00



THE College of William and Mary confers in course the following degrees, each under the jurisdiction of the Faculty or School indicated:

Faculty of Arts and Sciences: Bachelor of Arts (A.B.), Bachelor of Science (B.S.), Master of Arts (M.A.), Master of Science (M.S.), and Doctor of Philosophy (Ph.D.).

School of Business Administration: Bachelor of Business Administration (B.B.A.), and Master of Business Administration (M.B.A.).

School of Education: Master of Arts in Education (M.A.), Master of Education (M.Ed.), and Doctor of Education (Ed.D.).

School of Law: Juris Doctor (J.D.), and Master of Law and Taxation (L. & T.M.).

School of Marine Science: Master of Arts (M.A.), and Doctor of Philosophy (Ph.D.).

The requirements for the baccalaureate degree of Bachelor of Business Administration will be found on pages 182–184 of this catalog. The requirements for the post-graduate degrees are stated in the Graduate Catalog of the Faculty of Arts and Sciences or the Catalogs of the individual Schools.

DEGREES OF BACHELOR OF ARTS AND BACHELOR OF SCIENCE

The undergraduate degrees of Bachelor of Arts and Bachelor of Science are liberal arts degrees. A liberal education, although it has no single fixed definition, is more than a haphazard accumulation of courses. Its essential purpose is to liberate and broaden the mind, to produce men and women with vision and perspective as well as specific practical skills and knowledge. The major foundations on which a liberal education must be built are well-recognized. For these reasons, the College requires each undergraduate to plan, with the help of a faculty advisor and within the framework of broad general degree requirements, a total program of liberal education suited to his particular needs and interests.

The general degree requirements set forth below are designed to permit a high degree of flexibility for each student in planning his particular program of liberal education within broad basic limits. In this planning, a student and his advisor should build upon his previous preparation. A freshman should pursue at least one study in which he has interest and competence at the highest level his preparation allows. As early as possible he should explore some studies with which he is unfamiliar, in order to open up new interests and opportunities. Finally, he should take care to lay the foundations for his future specialization, in college or beyond in graduate or profes-

sional school, by anticipating specific prerequisites.

A liberal education presupposes certain proficiencies. Foremost among these is the ability to express one's self-clearly both in speech and writing, for clear expression goes hand in hand with clear thinking. Another invaluable foundation of a liberal education is some experience with a foreign language, at least to the point where a student begins to see for himself the cultural as well as practical values of foreign language study. Since students entering college differ widely in their previous preparation in these respects, the proficiency requirements of the College establish only basic minimums; but each student is encouraged to proceed beyond these minimums to whatever extent his interests and abilities suggest.

In the Freshman Colloquium, the College offers every entering student an opportunity, in the context of a small class situation, to explore a challenging topic of special interest to him. He may choose a colloquium in a field in which he has already devel-

oped an interest and competence, or in an unfamiliar field about which he is curious. In either case he will participate closely in an exciting intellectual endeavor with his fellow students and a member of the faculty.

The Area Requirements are designed to ensure that every student will explore at least on an introductory level each of the broad areas of arts and sciences: the humanities, the social sciences, and the natural sciences and mathematics. In one of these areas every student will continue this exploration through the required sequence of two advanced courses building upon the two introductory ones.

Finally, in the area of his Concentration, every student is required to pursue in depth the exploration of a specific academic discipline or two or more related ones through an interdisciplinary concentration. Here he has the fullest possible opportunities for both independent study and work in a Departmental Honors program, as well as for regular course work.

Achievement of its educational purposes requires that the College maintain standards of scholarly achievement and an environment conducive to learning and that to this end it adopt necessary regulations governing academic performance. The Faculty of Arts and Sciences of the College determines the degree requirements for the A.B. and B.S. degrees, including the determination of the regulations governing academic standards, grading, and class attendance. Obligation to its educational mission gives to the College the right and responsibility, subject to the employment of fair procedures, to suspend, dismiss or deny continuance of a student whose academic achievement does not meet established College standards.

Requirements for degrees are stated in terms of "semester credits" which are based upon the satisfactory completion of courses of instruction. One semester credit is given for each class hour a week through a semester. Not less than two hours of laboratory work a week through a semester will be required for a semester credit. A semester is a term of approximately eighteen weeks or one-half of the college session.

Courses of the 100 series are primarily for freshmen, 200 for sophomores, 300 and 400 for juniors and seniors. Courses of the 500 and 600 series are intended for graduate students only. Odd numbered courses are ordinarily offered in the first semester but may be offered in the second semester also; even numbered courses are ordinarily offered in the second semester but may also be offered in the first semester.

A continuous course covers a field of closely related material and may not be entered at the beginning of the second semester without approval of the instructor.

No credit will be counted toward a degree for the first semester of an elementary foreign language unless followed by the successful completion of the second semester of that language.

REQUIREMENTS FOR THE DEGREES OF A.B. AND B.S.

A. GENERAL REQUIREMENTS

One hundred and twenty-four semester credits are required for graduation. Of these one hundred and twenty-four semester credits, one hundred and twenty must be in academic subjects and four in a program of activities in Physical Education. A minimum of 120 quality points in academic subjects is required.

The student must make a minimum quality point average of 1.0 for all courses in the field of concentration for which he receives an official grade. The number of quality points earned must at least equal the number of semester credits attempted.

No degree will be granted by the College until the applicant has made a minimum of sixty semester credits in residence at the College in Williamsburg. This period must include the last two semesters in which credits counted toward the degree are earned.

A student must fulfill the general degree requirements set forth in the catalog at the date of entrance to the College, and he must fulfill the concentration requirements in

effect when the choice of concentration is declared. A student who fails to graduate within six calendar years of the date of entrance to the College relinquishes the right to graduate under the requirements set forth in the catalog at the time of entrance, and must fulfill the requirements in effect during the final session of his attendance at

the College.

A student must complete the requirements for a degree within ten semesters of residence in College provided, however, that when a student has been permitted by the Committee on Academic Status to reduce his semester schedule below twelve academic credits, the total period of residence permitted for the completion of the degree requirements shall be extended in proportion to the reduction permitted. In the application of this requirement, attendance in Summer Session will be included. Such attendance will be counted on the basis of the ratio of the Summer Session course load to the normal program of the regular session.

B. PROFICIENCIES, AREA REQUIREMENTS, CONCENTRATION

The credits for a degree must be completed in accordance with the following specific requirements.²

1. Proficiencies

- A. Foreign Longuage: Unless a student presents at least four entrance credits in a single ancient or modern foreign language, or demonstrates equivalent proficiency by examination, he must satisfactorily complete a fourth semester course (or above) in a language in college.
- B. Writing: A student whose combined SAT Verbal and English Achievement scores fall below 1300 must satisfactorily complete a one-semester course in writing, normally during his freshman year, unless he applies to take and demonstrates satisfactory performance on a writing test administered during orientation week. A student whose combined scores are 1300 or better may take a course in writing but is not required to do so.

¹ An entering freshman may receive a limited amount of credit or advanced placement in certain fields through satisfactory achievement on the Advanced Placement Tests of the College Entrance Examination Board or, in some instances, on other evidence of superior preparation in secondary school. These fields are Biology, Chemistry, English Composition, English Literature, American History, European History, Latin, Mathematics, French, German, Spanish, and Physics. Further information can be obtained from the Associate Dean of the Faculty of Arts and Sciences.

² These requirements represent the normal path to a degree from the College of William and Mary. However, in exceptional cases, a student by petition to the Committee on Degrees may be released from normal requirements and permitted to devise his own program in consultation with his advisor and subject to the approval of the Committee. In addition, a student may petition the Committee on Degrees to receive credit for any course in the curriculum by examination. Upon granting such a petition, the Committee shall request the department in which the course is normally offered to set an appropriate examination and to certify the results thereof to the College Registrar and to the Committee. Seniors will not be given permission to attempt to gain credit for courses by examination subsequent to registration for their final semester. Students will not be given permission to attempt to gain credit by examination for lower level courses when upper level course work in the same subject has already been accomplished.

C. Physical Education: A student must acquire four semester credits in a physical education program. Each of the four requirements may be satisfied by electing a semester course in an activity offered by the Departments of Physical Education, by participating for a season in a varsity sport, or by passing one of the skills tests offered. A student must begin this program in his first semester of residence and continue in the program until the requirements have been satisfied.

2. Area Requirements

A student must satisfactorily complete eight courses distributed among the following areas:

Area I. Classical Studies, Comparative Literature, Dance, English, Fine Arts, Modern Languages, Music, Philosophy, Religion, Theatre and Speech.

Area II. Anthropology, Economics, Government, History, Psychology, Sociology.

Area III. Biology, Chemistry, Geology, Mathematics, Physics.

The eight area courses must be chosen according to the following rules:

(1) Each student must take a minimum of two semester courses in a single department within each area, not including courses in the department of his concentration.

(2) Each student must take two additional courses outside the area of his concentration. At least four courses outside the area of concentration must form a logical sequence of introductory and advanced courses or a logical combination of courses on an interdisciplinary topic. Approval for an interdisciplinary sequence must be obtained from the Dean of the Faculty of Arts and Sciences, upon the recommendation of the chairmen of the departments concerned.

(3) Each student must complete at least six of these eight required courses before

he will be permitted to register for his fourth academic year.

(4) Certain courses offered by a department assigned to one area may be designated by the Educational Policy Committee as suitable for meeting these requirements in another area; but no student may fulfill the area requirements in more than one area with courses offered by the same department.

(5) The semester courses in writing and foreign language courses which are not primarily concerned with the study of the literature or culture in the language do not

count toward meeting the area requirements.

- (6) In addition to satisfying the Area III requirement by two semester courses in a science, a candidate for the B.S. degree must take two additional semester courses in a different science, selected in accordance with the requirements of the department in which the student is concentrating.
- (7) For the purpose of meeting the above regulations regarding area requirements, Business Administration subprograms and Education concentrations are designated as being in Area II.

(8) Courses taken on a Pass/Fail basis may not be used to satisfy area, sequence or concentration requirements.

3. Concentration

Before the end of the sophomore year each student shall select either a departmental or an interdisciplinary concentration. A student cannot change his concentration after registration for the second semester of the senior year.

A. Departmental concentrations are offered (for the Bachelor of Arts degree) in Anthropology, Classical Studies¹, Economics, Education, English Language and Literature, Fine Arts, Geology, Government, History, Mathematics, Modern Languages²,

¹ The Department of Classical Studies offers concentration in Greek, Latin, and Classical Civilization.

² The Department of Modern Languages offers concentration in French, German, and Spanish.

Music, Philosophy, Physical Education for Men, Psychology, Religion, Sociology, Theatre and Speech, and (for the Bachelor of Science degree) in Biology, Chemistry, Geology, Mathematics, Physical Education for Men, Physics, and Psychology.

The student in consultation with the chairman of his major department shall select the courses for concentration. A department must require at least twenty-seven semester credits in a single subject field for a concentration but may not require more than forty-two semester credits in all.

When a student decides to concentrate in a subject field in which he has already received credit for an area requirement, that credit shall be counted as part of his concentration and he will have to fulfill the area requirement in another subject field.

No student shall be permitted to apply toward a degree more than forty-eight semester credits in a subject field. The subject fields include: Anthropology, Biology, Chemistry, Economics, Education, English, Fine Arts, French, Geology, German, Government, Greek, History, Latin, Mathematics, Music, Philosophy, Physical Education for Men, Physics, Psychology, Religion, Sociology, Spanish, and Theatre and Speech.

Students in Elementary and Secondary Education may apply twenty-seven semester credits and twenty-four semester credits respectively in Education toward the A.B. degree.

B. Should a student fulfill the concentration requirements of more than one department, this information will be recorded on the student's permanent record at the request of the student.

C. Interdisciplinary concentrations are supervised by a Committee on Interdisciplinary Studies. Any student may submit a plan for an interdisciplinary concentration for the approval of this committee. Applications are available in the office of the Dean of Students.

SPECIAL PROGRAMS

HONORS PROGRAMS

The Honors Programs provide special opportunities through independent study for the intellectual stimulation and development of superior students in certain departments and interdisciplinary studies. Departments participating in the program during the 1974-75 academic session are Biology, Classical Studies, Economics, English, Fine Arts, Government, History, Modern Languages, Philosophy, Physics, Psychology, and Sociology.¹ Students in this program may, as the result of distinguished work, be awarded a degree with "Honors," "High Honors," or "Highest Honors."

I. Eligibility, Admission and Continuance in the Program

- A. Eligibility is contingent upon the student's achieving a minimum quality point average of either (1) 2.0 on a cumulative basis by the end of the junior year, or (2) 2.0 for the junior year alone.
- B. A student who wishes to pursue honors work and who has good reason to believe that he will qualify under paragraph "A" above should declare his interest as early as possible to the Chairman of his Department. Such declaration should be made in the spring of his sophomore year when he declares his field of concentration but may be made as late as the spring of his junior year. Application for admission to honors must be made in the spring of the junior year. The student who is acceptable to the Chairman of the Department and whose eligibility has been certified by the Dean of the Faculty of Arts and Sciences will be admitted to candidacy (subject to considerations of teaching staff availability) prior to registration in the fall of the student's senior year.

¹ See the descriptions under these departments for specific requirements.

C. The continuance of a student in the Honors Program is contingent on his maintaining what his major department judges to be a sufficiently high standard of work.

II. Minimum Requirements for a Degree with Honors

- A. Satisfactory completion of a program of reading and research supervised by a faculty member designated by the head of the student's major department. Six hours of credit in a course designated 495-496 in each department offering Honors shall be awarded each student satisfactorily completing the program.
- B. Satisfactory completion of the general requirements for the degree of A.B. or B.S.
- C. Presentation of an Honors Essay or completion of an Honors Project acceptable to the major department. This requirement must be met by May 1 of the student's senior year.
- D. Satisfactory performance in a comprehensive examination in the field of the student's major interest.

III. Examining Committee

- A. Each comprehensive examination shall be set and judged and each Honors Essay or Project shall be judged by an examining committee of not less than three members, including at least one member of the faculty of the candidate's major department and at least one faculty member from another department.
- B. Examining committees shall be appointed by the Dean of the Faculty of Arts and Sciences.

IV. Standards

- A. Final determination of a student's standing with respect to honors shall rest with his examining committee. The committee shall take into account (1) the recommendation of the major department, (2) the recommendation of the major advisor, and principally (3) its own judgment of the comprehensive examination and essay or project.
- B. A minimum grade of "B" on both the comprehensive examination and the essay or project is required for "Honors." The award of "Honors," "High Honors," or "Highest Honors" shall be determined by the student's examining committee.
- C. When a student's work does not, in the opinion of the Committee, meet the minimum requirements for honors, the faculty members supervising the student's Honors work will determine what grade should be granted. A student may be dropped from honors work at the end of the first semester.

PROJECT PLUS: AN ACADEMIC AND RESIDENTIAL PROGRAM

Project PLUS is an enterprise that combines a study program with special living arrangements. It is made up of 84 sophomores, juniors and seniors who live in the PLUS residence hall and who enroll for part of their academic work in special courses taught by faculty in the residence hall itself. All course work in the Project centers on a common theme. Objectives of the Project are: (1) to integrate in-class and out-of-class activity; (2) to offer more opportunity for experimentation in teaching and course design; (3) to encourage interdisciplinary study. By virtue of his enrollment in one tutorial and in the forum, each student earns four hours of elective credit each semester graded on a Pass/Fail basis.\(^1\)

¹ For further information, see pages 36 and 162.

William and Mary Junior Year in France

This academic, junior-year program in residence at the Universite Paul Valery, Montpellier, France was inaugurated in 1974-75. The program includes students from the College and other four-year peer group colleges and is supervised by a Resident-Director. The program is open to students in good academic standing who have completed requirements for junior year status by June, 1975, and who have demonstrated proficiency in French either by 1) a grade of B in at least one course beyond the first two years of introductory level French language courses or 2) a written statement from a professor of French certifying to sufficient mastery of the language to study abroad.

The academic program includes a six weeks preliminary session of intensive language preparation and orientation in Montpelier and two semesters, from late October to June, totalling 30 semester hours of credit for the year. Representative fields are art history, archaeology, economics, French, history, philosophy, political science, and sociology. Special tutorials or independent study projects as appropriate.

ACADEMIC REGULATIONS

ACADEMIC ADVISING

Sound academic advising can make the crucial difference between an educational experience that is coherent and exciting, and leads to satisfying personal and professional goals, or one that is fragmented and frustrating to the student. Therefore, students are encouraged to take full advantage of the faculty advising program and to seek out their advisor for academic and other counsel.

Each freshman and sophomore student is assigned an advisor and, whenever possible, the assignment is based on the academic interests of the student. Eash freshman meets with his advisor before registering for the freshman year to discuss his or her academic and professional goals, to introduce the student to the academic regulations and requirements of the College, and help the student plan a specific program of studies. If mutually satisfying, freshmen retain the same advisor during the sophomore year. At William and Mary, the student is responsible for meeting his academic goals and it is well for him to take the initiative in making appointments with his advisor to discuss these with him.

Junior and senior students are assigned faculty advisors by the departments in which they have declared a concentration.

REGISTRATION

Toward the end of each semester, upper level undergraduates register for the following semester. This registration must be validated at the beginning of classes, at which time students must provide the College with a social security number and a current local address. New students and lower level undergraduates register during the stated period at the beginning of each semester at which time they must provide the College with a social security number and a current local address.

STUDENT'S PROGRAM

Any student who is admitted to the College is normally assumed to be a degree candidate and is required to register in each semester for a full-time load of courses for academic credit within the permitted range of registration. A degree student may register for any number of academic credits per semester falling within the range of 12

credits minimum and 18 credits maximum, excluding required physical education courses. The normal load for a student planning to graduate with a degree in four years is 15 academic credits per semester, or 30 credits each academic year. An academic year is comprised of the first semester plus the second semester but does not include the summer session. Work successfully completed during a summer session is counted toward the 120 academic credits required for graduation, as is the case with transfer credit or advanced placement, but it does not count in the application of continuance standards in any academic year.

Non-credit courses may be carried in addition to the normal load and may be taken

only on a Pass/Fail basis. They will in no way count toward a degree.

Petitions for underloads or overloads, when warranted by special circumstances, may be granted by the Committee on Academic Status; these petitions should be made in writing to the Office of the Dean of Students preferably within a period of 5 days before the first day of registration for the semester in question, but not later than 2 days before the close of the period allowed for course changes without penalty. Only to exceptionally able students, however, will the Committee on Academic Status grant permission to carry more than 18 academic credits.

A student may arrange with the Registrar, within the period allowed for course changes, to elect one course in each semester of the junior and senior years to be graded on a Pass/Fail Credit basis. This option, once exercised, is irrevocable.

CLASSIFICATION OF STUDENTS

A sophomore student must have completed at least twenty-four (24) credits in academic subjects, with at least twenty-four (24) quality points. A junior student must have completed at least fifty-four (54) credits in academic subjects, with at least fifty-four (54) quality points. A senior student expecting to graduate in June must have completed eighty-five (85) credits in academic subjects, with at least eighty-five (85) quality points.

CONTINUANCE IN COLLEGE

The standards which are set forth below are considerably less than those which are necessary to insure completion of degree requirements within four academic years.

There is no minimum number of academic credits that a student must earn in each semester, except in the case of a student who is placed on academic probation by the Committee on Academic Status. However, minimal progress and continuance in college require that a student maintain the following schedule of accumulated academic credits (exclusive of work earned during a summer session, through transfer, or through advanced placement): 15 semester credits at the end of the first academic year, 39 semester credits at the end of the second academic year, 66 credits at the end of the third academic year, and 93 semester credits at the end of the fourth academic year.

In addition, a student must have completed at least six of the eight required area and sequence courses before he will be permitted to register for his fourth academic

year.

Students permitted to continue in College on probation and students readmitted to the College on probation are required to meet certain additional standards as established by the Committee on Academic Status. The normal probation period is one academic year. A student who is continuing on probation or who is returning to the College on probation must register for at least 12 academic credits of course work in each semester and must successfully complete all work attempted. A student who is placed on probation and who during this period is permitted to attend summer session must

complete successfully all work attempted during the session. In other words, during a period of probation a student is precluded from electing to drop with a designation of F any course for which he registers, and he may not register for less than 12 academic credits. An unclassified student enrolled for 12 or more academic hours must meet the continuance standards applicable to the regularly enrolled student. The record of a student not meeting these standards will be reviewed by the Committee on Academic Status.

WITHDRAWAL FROM COLLEGE

Students who desire to withdraw from College should apply to the Office of the Dean of Students for permission to withdraw. The permanent record card of any student who withdraws from College without permission from the Dean will carry the notation "Withdrew Unofficially."

The Committee on Academic Status reserves the right to determine the status of students who have withdrawn from the College after the add-drop period in either semester.

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CLASS ATTENDANCE

An educational system centered upon classroom instruction is obviously predicated on the concept of regular class attendance. In support of this concept, the following principles are to be observed:

1. Except for reasonable cause, students are expected to be present at all regularly scheduled class meetings, particularly their last scheduled class in each of their courses preceding and their first scheduled class in each of their courses following the Thanksgiving, Christmas, and Spring holidays.

2. Students whose attendance becomes unsatisfactory to the extent that their course performance is affected adversely should be so informed by their instructor and the same reported to the Office of the Dean of Students.

CHANGES IN REGISTRATION

For a period of two weeks after the beginning of classes a student may add or drop courses. The procedure for adding and dropping courses is initiated by making application to the Office of the Registrar, and must be completed by the last day of the registration adjustment period. The Registrar, in turn, records the change on the student's registration card and informs the instructor or instructors concerned. Unless a course change has been made in this manner it has no official standing and will not be recognized as valid by the College. Courses dropped during the adjustment period are not entered on the student's academic record.

A student may add a course after the adjustment period only in the most unusual circumstances. A petition to add a course must have an explicit, positive written recommendation from the student's advisor, as well as the consent of the instructor of the course to he added, before it is considered by the Committee on Academic Status. The procedure for adding courses is initiated by making application to the Office of the Dean of Students, and the advisor's recommendation should be sent directly to that office.

A student may drop a course after the adjustment period under certain specified conditions: a) a student may withdraw from a course regardless of his academic standing in that course during the two weeks following the add-drop period with the grade of W; b) a student may withdraw from a course with the grade of W at any time through the last class day in that course if the instructor reports that the student is passing the course at the time of withdrawal. However, in either case the grade of W

will be awarded only if the student remains registered for at least 12 academic hours after the course withdrawal and upon official notification to the Office of the Registrar. Exceptions to the foregoing policy may be granted by the Committee on Academic Status. Students are strongly urged to confer with their advisor and with the instructor of any course which they contemplate dropping. A student should inform the instructor of a course which he drops. Any semester in which a student who is pursuing a full-time academic load drops all of his courses after the registration adjustment period for other than medical reasons is designated an "attempted semester" and is counted as one semester for purposes of administering the ten-semester rule for the completion of degree requirements.

EVALUATION OF CREDITS FROM OTHER INSTITUTIONS

The credits of students transferring from other institutions will be evaluated only tentatively upon matriculation. Transfer grades are recorded as earned but all students must earn at the College of William and Mary a number of quality points equal to the number of academic credits successfully completed at the College. Thus, a transfer student may not use grades earned at another institution to make up a deficit of quality points at the College of William and Mary. Evaluations of records are not made by the Committee on Degrees until after students have been selected for admission.

Transfer credit is granted for any course taken at an accredited college or university in which the student has earned a grade of "C" or better (or, in the case of a course taken on a "Pass/Fail" basis, a grade of "P"), provided that the course is comparable to a course offered for academic credit at the College. A course is deemed comparable to a course offered for academic credit at the College if either (a) the course is exactly like or very similar to a course offered for academic credit at the College, or (b), if it is a course which does not meet condition (a), it is of such a nature that it would carry academic credit if it were offered by the College. It is not necessary that a course exactly match, or be similar to a course offered at the College in order to be granted transfer credit.

Equivalence transfer credit is granted for courses satisfying condition (a). Elective transfer credit is granted for courses satisfying condition (b). Courses granted elective transfer credit will count toward the total number of academic credits required for the baccalaureate degree, but they may not be used to meet specific requirements such as those for area and sequence, course prerequisites, or concentration requirements without the approval of the Committee on Degrees acting on the recommendation of the appropriate department or school, or, in case a course does not come within the jurisdiction of a department or program at the College, the recommendation of the Committee on Interdisciplinary Studies. If a student wishes to use elective transfer credit to meet some specific requirement, such as those for area or sequence, course prerequisites or concentration, he may petition the department, school, or Committee on Interdisciplinary Studies, as appropriate. It is the responsibility of the student to furnish the relevant evidence needed to act on this petition. The recommendation of the department, school, or Committee on Interdisciplinary Studies is sent in writing to the Committee on Degrees for action.

Transfer credit will not be granted for courses which belong in one or more of the following categories: (a) courses in professional, vocational or sectarian religious study, (b) courses below the level of introductory courses at the College, (c) freshman English courses of more than one semester which are devoted primarily to writing or composition, (d) applied music courses not accompanied or preceded by courses in music theory, (e) courses in a language previously taken in high school, (f) college orientation courses, and (g) courses which do not carry academic credit at the College, such as home economics, secretarial science, and military science courses without ac-

ademic content.

No student may assume that credit will be given for work at other institutions until he has a written statement as to what credit will be accepted. Any student of the College in Williamsburg who proposes to attend a summer session elsewhere must have written permission in advance from the Chairman of the Committee on Degrees in order to insure that the credit may be transferred to the College in Williamsburg. Credit for extension courses in the field of concentration or for the requirements for the baccalaureate degree shall be limited to one-fourth of the total credit hours required. It is the policy of the College not to grant credit for attendance in service schools or training programs in the Armed Forces unless it can be demonstrated that such attendance is the equivalent of a course or courses offered at William and Mary. Academic courses taken while on military service at accredited colleges, universities or language institutes may be transferred in the normal manner. No credit will be granted for general military training.

SYSTEM OF GRADING

Effective September 1974, the work of each student in each course in an academic subject is graded A, B, C, or F. These grades have the following meanings: A, excellent; B, good; C, satisfactory; and F, failure. For each semester credit in a course in which a student is graded A he receives 3 quality points; B, 2; C, 1. F carries no credit and no quality points. Courses taken on a Pass/Fail basis and work in required Physi-

cal Education are graded P (pass) or F (failure).

In addition to the grades Å, B, C, and F, the symbols "W," "G," and "I" are used on grade reports and in the College records. "W" indicates: a) a student's withdrawal from a course, regardless of his academic standing, during the two weeks following the add-drop period, and b) a student's withdrawal from a course at any time through the last day of classes if the instructor reports that the student is passing the course at the time of withdrawal. In either case, the "W" would be given only if the student remains registered for at least 12 academic hours after the course withdrawal. Exceptions to the foregoing policy may be granted by the Committee on Academic Status.

"G" indicates that the instructor has deferred reporting the student's grade, when there is not sufficient evidence on which to base a grade, including absence from the final examination. Arrangements for absence from a final examination for reasons of illness or other good grounds must be made with the Office of the Dean of Students and permission to take a deferred examination must be obtained from the Dean of the Faculty of Arts and Sciences. "G" automatically becomes F at the end of the next semester if the deferred work has not been completed.

"I" indicates that because of illness or other major extenuating circumstances, the student has postponed, with the explicit consent of the instructor, the completion of certain required work other than the final examination. "I" automatically becomes F at the end of the next semester if the postponed work has not been completed.

The quality point average will not appear on the student's grade reports.

EXAMINATIONS

The examinations, given at the end of each semester, take place at the times announced on the examination schedule, which is coordinated by the Dean of the Faculty of Arts and Sciences and attached to the class schedule. Students are required to take all of their examinations at the time scheduled, unless excused on account of illness or other sufficient reasons by the Office of the Dean of Students. Students should present their reasons for an expected absence to the dean in advance of the examination. No excuse on the ground of illness will be accepted unless it is approved by the College physician.

Deferred examinations are authorized by the Dean of the Faculty of Arts and Sci-

ences for students who have been excused by the Office of the Dean of Students from taking their examinations at the regular time. Members of the faculty are not authorized to grant deferred examinations. The deferred examinations for courses in the first semester are given in the fourth week of the second semester; the deferred examinations for courses in the second semester are given during the orientation period in September. Except under very exceptional circumstances students are not permitted to postpone the taking of a deferred examination beyond the first occasion thus regularly provided; and in no case will permission to take a deferred examination be extended beyond a year from the time of the original examination from which the student was absent. The schedule of the deferred examinations, coordinated by the Dean of the Faculty of Arts and Sciences, will be mailed to each student who is entitled to take a deferred examination.

The College does not authorize re-examinations.

GRADUATE STUDY

The College offers the degrees of Moster of Arts in Biology, Chemistry, Education, English, Government, History, Marine Science, Mathematics, Physics, Psychology and Sociology; Moster of Science in Applied Science, Mathematics, and Physics; Moster of Education; Moster of Law and Taxation; Moster of Business Administration; Juris Doctor; Doctor of Education; and Doctor of Philosophy in History, Marine Science, and Physics.

For degree requirements consult the Graduate Catalog of the Faculty of Arts and Sciences and the School of Marine Science, or the catalogs of the School of Business Administration, the School of Education, and the Marshall-Wythe School of Law. For the administration offices to which to direct inquiries see p. ii.



IV. FIELDS OF CONCENTRATION AND COURSE DESCRIPTIONS

THE chapters in this section describe, in alphabetical order, the requirements for concentration in the various fields offered by the College according to the departments and schools offering them. The chapters also include the undergraduate course offerings of the departments, schools, and particular programs listed according to course number. Courses that satisfy proficiency requirements are so designated and courses that can be taken to fulfill area and sequence requirements are indicated by symbols as described below.

Also described in the chapters are the requirements for departmental honors study, when that is provided. The last chapters explain the special programs of the College, and the pre-professional programs that the College offers.

EXPLANATION OF COURSE DESCRIPTIONS

- (A) This course satisfies area requirements.
- (S) This course satisfies sequence requirements.
- (AS) This course satisfies area and sequence requirements.
- (*) Starred courses may be taken only with the consent of the instructor.
- (‡) Daggered courses may be taken only with the consent of the head of the department or dean of the school concerned.
- Pairs of numbers (201, 202) indicate continuous courses. A hyphen between numbers (101-102) indicates that the courses *m*ust be taken in the succession stated.
- Courses involving laboratory or studio activity are so labeled. All others are class-

Semester hour credit for each course is indicated by numbers in parentheses.

FACULTY OF ARTS AND SCIENCES

DEPARTMENTS OF INSTRUCTION

ANTHROPOLOGY

PROFESSOR ALTSHULER (Chairman of the Department). ASSOCIATE PROFESSORS BALLINGALL, BARKA AND SUTLIVE. ASSISTANT PROFESSORS BRUSH, NOISIN, and REINHART. LECTURER SOUTHARD. VISITING PROFESSOR ZAMORA.

The department offers work in all sub-fields of anthropology and all major geographic areas. Field and laboratory training in archaeology, physical anthropology, and ethnography is provided in a variety of courses, as well as through individual research at the senior level. In conjunction with other departments and schools within the College, the department is developing programs in tropical studies, anthropology and education, historical archaeology, and comparative colonial studies. Under the auspices of the Southside Historical Sites Foundation and other agencies, the department conducts research at Yorktown and Flowerdew Hundred Plantation.

REQUIREMENTS FOR CONCENTRATION

Concentration in Anthropology requires 33 semester credits in anthropology, including Anthropology 201, 202, 301, 302, 400 and 401-402.

DESCRIPTION OF COURSES1

150. The Anthropological Perspective. Fall (3) Mr. Brush

An introduction to the ways in which the anthropologist views the relationship of man, nature, and culture. (Not offered 1974-75).

201. Introductory Anthropology. (AS) Foll (3) Staff

A general introduction to the field of anthropology. Particular attention will be given to recent archaeological discoveries concerning the origins of man, the development of agriculture, and the beginnings of urbanization.

202. Cultural Anthropology. (AS) Spring (3) Staff

The application of the concept of culture to the study of contemporary societies, both primitive and modern. Such institutional areas as magic and ritual; crime, custom, and law; economy; and courtship, marriage and childrearing will be analyzed cross-culturally.

301. Methods in Archaeology. Foll (3) Mr. Barka and Mr. Reinhart

A general introduction to field and laboratory techniques of prehistoric and historic archaeological research.

302. Methods in Ethnography. Spring (3) Staff

An introduction to field study including the collection and interpretation of data. The course will also include a review of techniques developed by ethnographers for the study of living communities.

304. Primitive Economic Systems. (AS) Fall (3) Mr. Bush

A study of representative economic systems of both prehistoric and modern non-industrial cultures. The course explores the evolution of technology and subsistence

¹Course work at the 100 or 200 level is ordinarily a prerequisite for upper level courses.

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techniques, the development of the market system, and the interrelationship of economic organization and other aspects of culture.

307. Social Anthropology. (AS) Fall (3) Mr. Zamora

An introduction to the study of the major social features of non-industrial peoples from a functional point of view. Topics considered are: incest and exogamy, marriage, the family, kinship, descent and descent groups, age and sex associations, stratification.

308. Primitive Religion. (AS) Fall (3) Mr. Sutlive

This course will examine the religious systems of primitive societies. Topics to be considered include myth and ritual, sorcery and witchcraft, nativistic movements, magic, and shamanism. The course will also examine the effects of modernization on primitive belief systems.

309. Physical Anthropology. (AS) Spring (3) Ms. Ballingall

An examination of the evolution of the hominids and of the relations between them and the forms closest to them, the Primates. Attention will be given to fossil forms, and to fossil and living populations.

310. History of Anthropology (AS) Spring (3) Mr. Sutlive

The course will cover the development of the field of anthropology in the 19th and 20th centuries. The student will read original works by major contributors to anthropological literature such as Morgan, Tyler, Frazer, and Kroeber.

311. Archaeology of North America. [AS] Fall [3] Mr. Reinhart

An introduction to the prehistory of North America north of Mexico from the earliest peopling to the historic period. The dynamics of culture development and the relation of prehistoric cultures to historic tribes will be analyzed.

314. Indians of North America. (AS) Spring (3) Mr. Reinhart

A survey of the major culture areas of aboriginal North America north of Mexico at the time of European contact. The post-contact relations between the Native Americans and the dominant White culture and the present-day situation and problems of Native Americans will be examined.

321. Archaeology of Middle and South America. (AS) Spring [3] Mr. Reinhart

An introduction to the prehistory of Middle and South America with special attention to the development of Aztec, Maya, and Inca civilization.

323. Peoples and Cultures of South America. (AS) Fall (3) Mr. Brush

A descriptive survey of the major culture areas of South America, analyzed in terms of such variables as race, language, ecology, dominant values, and culture contacts.

330. Peoples and Cultures of the Caribbean. [AS] Spring (3) Mr. Noisin

An introduction to the peoples and cultures of the Caribbean with particular attention given to social distinctions based upon class, ethnicity, race, language, land tenure, and religion.

331. Peoples and Cultures of Africa. (AS) Fall (3) Mr. Noisin

An introduction to peoples and cultures of Africa. The ideological, social, political and economic aspects of representative cultures are examined. Emphasis is placed on learning how to apply information gathered from particular African peoples to problems of general interest in the social sciences.

340. Peoples and Cultures of Insular Southeast Asia. (AS) Spring (3) Mr. Sutlive

A descriptive survey of the ethnic groups of Insular Southeast Asia, analyzed in terms of ecology, social structure, technology, and cultural pattern. The course concerns itself with insular southeast Asia of the ethnographic present and the present day.

342. Peoples and Cultures of Mainland Southeast Asia. (AS) Spring (3) Mr. Sutlive

A descriptive survey of the major ethnic groups of Mainland Southeast Asia, analyzed in terms of ecology, language, social structure, and cultural configuration. The course concerns itself with southeast Asia in the ethnographic present and the present day.

344. Peoples and Cultures of Oceania. (AS) Fall (3) Ms. Ballingall

A descriptive survey of the Pacific Island World, including Aboriginal Australia, analyzed in terms of such variables as social organization, cultural pattern, and culture contact.

346. Peoples and Cultures of South Asia. (AS). Spring (3) Mr. Zamora

A descriptive survey of the ethnic groups of the sub-continent of India and Ceylon. These societies and cultures will be analyzed in terms of ecology, social structure, value systems, and demography.

352. Archaeology of Europe. (AS) Spring (3) Mr. Barka

A survey of the prehistoric and early historic cultures of Europe, covering the Paleolithic, Neolithic, Bronze, and early Iron Ages. Comparisons will be made with the cultural development of Asia, the Middle East, and Africa.

400. Anthropological Theory. Fall (3) Mr. Altshuler

A seminar for senior concentrators in anthropology which deals with theories concerning the relationship of man, nature, society and culture presented by anthropology and related disciplines.

401-402. Anthropological Research. Fall and Spring [3] Staff

Independent study which will culminate in a senior essay. Required of all concentrators. (Honors candidates will take 495-496 in place of 401-402).

408. Culture and Tradition in Pre-Colonial Africa. (AS) Fall (3) Mr. Noisin

A survey of the development of African culture from the rise of the great Sudanic Kingdoms until the partition of Africa by the European powers following the Berlin conference of 1884-85.

411. Cultural Patterns and Technological Change. (AS) Fall (3) Ms. Ballingall

An examination of the role of cultural practices and interdependent cognitive frameworks which facilitate or impede modernization of societies now encompassed within so called underdeveloped areas. Case studies by anthropologists from a variety of cultures will be presented. (Not offered 1974-75).

417. Special Topics in Anthropology.

Anthropology and Education. (AS) Fall and Spring (3, 3) Mr. Noisin Urban Anthropology. (AS) Fall (3) Mr. Sutlive The Descent of Woman. (AS) Fall (3) Ms. Ballingall.

422. Personality in Culture. (AS) Fall (3) Mr. Altshuler

The relationship of personality type to cultural factors such as myth and ritual, sub-

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sistence patterns, language, and child rearing will be considered utilizing data from a variety of cultures. Special attention will be given to differing concepts of identity, and mental illness and health.

430. Descriptive Linguistics. (S) Fall (3) Mr. Southard (Same as English 405)

A study of contemporary linguistic theory and some practical methods of language analysis, including a comparison of the structures of diverse languages.

432. Historical Archaeology. (AS) Spring (3) Mr. Barka

The archaeology of the era since the heginning of the exploration of Europeans of the non-European world, with major emphasis upon North America. Artifacts of the period will be examined with a view toward reconstructing the daily life of the people.

440. Introduction to Historical Linguistics. (S) Spring (3) Mr. Southard (Same as English 406)

This course surveys the major results of Indo-European Historical Reconstruction. Some consideration is given to the contributions of recent Generative Phonology and Indo-European. The course also includes some investigations into non-Indo-European Reconstruction.

450. Anthropology and Medicine. (AS) Spring (3) Mr. Altshuler

The medical system of the United States will provide the basic unit of comparison for a review of the ways in which different societies cope with problems of ill-health. The focus will be upon cultural variation in definitions of "illness" and "therapy" and the manner in which such definitions and practices are interrelated with other aspects of culture.



Biology

PROFESSORS BYRD (Chairman of the Department), BALDWIN, BLACK, BROOKS, COURSEN, MANGUM, MATHES, and TERMAN, ASSOCIATE PROFESSORS ACETO, GRANT, HALL, SPEESE, VERMEULEN, and WARE. ASSISTANT PROFESSORS BECK, BRADLEY, DOW. FASHING, SCOTT, and WISEMAN.

The program of the Department of Biology is organized to provide concentrators with a sound introduction to the principles of biology and to develop an appreciation for the diversity and complexity of living things. The Department attempts to provide concentrators both breadth and depth of training as well as a variety of approaches to the study of life, while allowing maximum flexibility in the development of programs consistent with the interests and needs of individual students. The Concentration requirements below have been designed with these objectives in mind.

Requirements for Concentration

A minimum of 38 credits is required for concentration in Biology. A maximum of 8 of these credits (which may include Chemistry 201, 202 or 203, 204) may be approved in other departments for courses above the 100 level completed with a minimum grade of "C". In addition to Biology 101, 102, a concentrator must take one course from each of the following five groups of courses. Some courses (marked with an asterisk) occur in two groups, but in such cases a single course may satisfy the requirement in only one group, and another course must be chosen from the second group. At least one course must be primarily zoological and at least one must be primarily botanical (those marked Z and B respectively). At least four courses above the 100 level must include laboratory work in addition to the lecture-discussion periods.

- A. (Biology of Organisms): 201 (Z); 206 (B); 208 (B); 209 (B); 215 (Z); *216 (Z); *305 (B); 412 (B); *416 (Z); *428 (Z).
- B. (Environmental Biology): *216 (Z): *305 (B); 311; *314; 410 (Z); *416 (Z); *426 (Z).
- C. (Genetics and Evolution): 302; *314.
- D. (Developmental and Cell Biology): 202 (Z); 203 (B); 301; 320 (B); *405; 422.
- E. (Physiology and Biochemistry): *405; 408 (Z); 414; 419 (B).

Chemistry 203 and 204 are required for concentration in Biology and are included in the calculation of the quality point average in the concentration. It is strongly recommended that Biology concentrators complete two semesters in both mathematics and physics. Students who intend to pursue graduate work in Biology should take a modern foreign language (German, French, or Russian) through 202.

DESCRIPTION OF COURSES

101-102 Introductory Biology. (A) Fall and Spring (4, 4) Mr. Coursen and Staff, Fall semester. Mr. Black and Staff, Spring semester.

Concepts of modern biology based on molecular and cellular structure; a brief survey of the plant and animal kingdoms relating morphology to physiology; discussions on ecology, organic evolution, and the relation between biological problems and human society. Three Closs Hours, Three Laboratory Hours.

201. Comparative Anatomy of Vertebrates. (S) Fall (4) Mr. Byrd. Prerequisite: Biology 102.

Consideration of the evolution of the larger taxonomic groups of chordates with a comparative study of their gross morphology. Three Class Hours, Six Laboratory Hours.

¹On leave, fall term, 1974-1975.

- **202.** Principles of Animal Development. (S) Spring (3 or 4). Mr. Wiseman. Prerequisite: Biology 102. An investigation of major events and processes of animal development. Topics include fertilization and early development, nuclear-cytoplasmic interaction, cell determination and differentiation, morphogenetic processes, growth, developmental neurobiology, neoplasia, aging, and genetic control of development. The optional laboratory is recommended for students interested in experimental developmental biology. Three Class Hours (3 credits) or Three Class Hours, Three Loboratory Hours (4 credits).
- 203. Principles of Plant Development. (S) Fall (3 or 4) Mr. Mathes. Prerequisite: Biology 101, 102. Discussion of cell growth, auxin balance, nutrition, and cell division as factors which contribute to the determination of developmental pathways in plants. The optional laboratory is highly recommended as a supplement to lectures for students interested in developmental biology or general botany. Three Class Hours (3 credits) or Three Class Hours, Three Laboratory Hours (4 credits).
 - 206. Plant Taxonomy. (S) Spring (4) Mr. Baldwin. Prerequisite: Biology 101.

Phyletic relationships of flowering plants and ferns; principles of classification; collection and indentification of representative native and cultivated plants. Two Class Hours, Six Laboratory Hours.

208. Morphology and Phylogeny of Plants. (S) Fall (4) Miss Speese. Prerequisite: Biology 101.

The morphology of representative lower plants is studied in the laboratory and in the field. Some experiments are performed. Two Class Hours, Six Laboratory Hours.

209. Anatomy of Land Plants. (S) Fall (4) Mr. Hall. Prerequisite: Biology 101.

A systematic survey of the major cell, tissue and organ types of the bryophytes, pteridophytes, gymnosperms and angiosperms. Taxonomy, life-cycles, paleobotany and evolutionary history of each group are discussed. Three Class Hours, Six Laboratory Hours. (Alternate years; not offered 1973-74.

215. Vertebrate Biology. (S) Fall (4) Mr. Brooks.

A study of the ecology, taxonomy, behavior and physiological ecology of vertebrates, with special emphasis on the lower vertebrates. Three Class Hours, Six Laboratory Hours.

216. Invertebrate Biology. (S) Fall [4] Miss Mangum.

Ecology, taxonomy, morphology, physiology and behavior of invertebrate organisms. Phylogenetic relationships are emphasized. Three Class Hours, Six Laboratory Hours.

301. Microbiology. (S) Fall (4) Mr. Vermeulen. Prerequisite: Biology 101.

Homologies are stressed in the study of life using the elementary systems of selected bacteria and other microorganisms. With the ultimate goal of an understanding of current research, the areas covered include classical and modern techniques, biochemistry, sexual and asexual genetics. Two Class Hours, Eight Laboratory Hours.

302. Genetics. (S) Fall (3 or 4) Mr. Baldwin or Mr. Grant. Prerequisite: Biology 101, 102; Introductory Chemistry and Mathematics are recommended. This course is intended to be a comprehensive survey of genetics as a field. It includes three broad areas: classical mendelism; gene structure and function; and population genetics. Students may elect to take laboratory, consisting of traditional class experiments and independent projects, and designed for students intending to pursue advanced studies in biology. Three Class Hours (3 credits) or Three Closs Hours, Six Laboratory Hours (4 credits).

305. Phycology. (S) Fall (4) Mr. Scott.

Structure, reproduction, life histories, ecology and cytology of marine and freshwater algae. Three Class Hours, Three Laboratory Hours. (Alternate years; not offered 1974-75).

307. Human Physiology. Spring (3) Staff. Prerequisites: Biology 101, 102 are suggested.

Detailed study of the manner in which different organ systems of the human body function. An elective course not applicable towards the minimum requirements for concentration in Biology. Two Closs Hours, Three Laboratory Hours.

308. Human Anatomy. Fall (3) Staff.

Gross and histological study of the human organism with particular emphasis on the neuro-muscular systems as related to physical and health education. An elective course not applicable towards the minimum requirements for concentration in Biology. Two Class Hours, Three Laboratory Hours.

311. General Ecology. (S) Fall (4) Mr. Ware. Prerequisites: Biology 101, 102; one other course in biology recommended.

Discussion of interactions between organisms and their environment; factors controlling structure, function, and distribution of populations, communities, and ecosystems. Three Class Hours, Three Laboratory Hours.

314. Biological Evolution. (S) Spring (3) Mr. Brooks, Prerequisites: Biology 101, 102, one other biology course. Introductory Chemistry and Mathematics are recommended.

Principles of biological evolution: detailed discussion of natural selection, sources of variation, population genetics, isolating mechanisms, speciation and human evolution.

320. Fundamentals of Mycology. (S) Spring (3 or 4) Mr. Coursen. Prerequisites: Biology 101; knowledge of chemistry recommended.

Designed to consider the general features common to most fungi by expounding on the broad trends in structure, function, and behavior which can be discerned in the group. Selected model systems which illustrate these features at the subcellular, cellular, and organismal level are examined. The optional laboratory is for students interested in broadening their botanical knowledge and acquiring laboratory skills needed in understanding and investigating fundamental processes in fungi. Three Class Hours (3 credits) or Three Class Hours, Three Laboratory Hours (4 credits).

402. Cytogenetics. (S) Spring (4) Miss Speese. Prerequisite: Biology 302.

Components of cells as related to genetics. Preparation and study of chromosomes. Two Class Hours, Six Laboratory Hours.

- *403. Problems in Biology. Fall and Spring (Credit to be arranged). Staff. Supervised projects selected to suit the needs of the individual student. Students may not apply more than three hours of Biology 403 toward a concentration in Biology. Hours to be arranged.
- **404.** Topics in Biology. Fall and Spring (2-4 credits to be arranged) Staff. Pre-requisites: Biology 101, 102.

Areas of special current research interest presented by resident and visiting faculty members as opportunity and demand arise. Hours to be arranged.

405. Cellular Physiology. (S) Fall (4) Mr. Black. Prerequisites: Biology 101, 102; Chemistry 104; Chemistry 203, 204 recommended.

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The relationships between submicroscopic anatomy and chemistry of the cells are explored. Experiments dealing with cell-chemistry, permeability, metabolism, and growth are performed. Three Class Hours, Four Laboratory Hours.

408. Mammalian Physiology. (S) Fall (4) Mr. Bradley. Prerequisites: Biology 101, 102 and Chemistry 203, 204; Physics 101, 102 recommended.

The function of the animal as a whole as indicated by the physiology and inter-relationships of different organs and organ systems. Three Class Hours, Four Laboratory Hours.

409. Virology. (S) Spring (3) Mr. Vermeulen. Prerequisite: Biology 301, 405 or 414.

The mechanisms of infection and replication of selected animal, plant and bacterial viruses are discussed with special attention being directed at the type of genetic material involved—DNA or RNA. Virally induced tumors and cancers are discussed at some length. (Alternate years; not offered 1973-74).

410. Animal Behavior. (S) Fall (3) Mr. Terman. Prerequisites: Biology 101, 102, Psychology 201, 202 recommended.

Description of the known behavior patterns of selected invertebrate and vertebrate groups with emphasis on adaptive significance. The genetics, ontogeny and ecological significance of behavior patterns will be presented where known. (Alternate years; not offered in 1973-74).

412. Biology of the Vascular Plants. (S) Spring (4) Mr. Hall.

A study of the major families of vascular plants, emphasizing comparative morphology and evolutionary trends, ecological relationships, economic importance, classification, and research methods. Three Class Hours, Six Laboratory Hours.

414. Biochemistry. Spring (3) Mr. Vermeulen. Prerequisites: Mathematics 103; Chemistry 203, 204 or permission of instructor.

A study of the molecular bases of living processes: The chemistry of the important constituents of living matter; energy metabolism; enzyme kinetics; thermodynamics; biosynthesis; metabolic control.

415. General Endocrinology. (S) Spring (4) Mr. Bradley. Prerequisites: Biology 101, 102; 408 recommended.

The role of hormones in the maintenance of homeostasis, control of metabolic processes, and reproduction as exemplified by mammals. This course is intended as an introductory course and is a prerequisite for Comparative Endocrinology. Three Class Hours, Four Laboratory Hours.

416. Introduction to Ornithology. (S) Spring (4) Mr. Byrd. Prerequisite: Biology 102.

Introduction to the biology of birds; lecture and laboratory work on morphology, classification, migration, distribution, and breeding biology; field work on identification and general ecology. Three Class Hours, Six Laboratory Hours.

417. Biostatistics. Fall (4) Staff. Prerequisites: Mathematics 111-112 and at least two courses at the 300 level or above in Biology.

An introduction to the mathematical and statistical techniques available to analyze and to interpret the results of experiments in both a qualitative and quantitative manner. The emphasis will be placed on the applications of quantitative techniques in biological research. Three Closs Hours, Three Laboratory Hours. (Not offered 1974-75).

418. Experimental Biochemistry I. Spring (2) Mr. Vermeulen. Prerequisite or corequisite: Biology 414 or 405 or Chemistry 204 or consent of the instructor.

An introduction to experimentation with biochemical systems, processes, and compounds of biochemical importance; identification and quantitative measurements of such constituents and of biological transformations. Six Laboratory Hours.

419. Plant Physiology. (S) Spring (4) Mr. Mathes. Prerequisites: Biology 101, 102; recommend Chemistry 203, 204.

Mechanisms of absorption, translocation, synthesis and utilization of materials. The role of internal and external factors in plant growth. Three Class Hours, Four Laboratory Hours.

422. Cell Structure and Function. (S) Spring (3 or 4) Mr. Scott. Prerequisites: Biology 101, 102; Chemistry 203 recommended.

Lectures deal principally with the correlation of ultrastructural morphology with cell function. The optional laboratory is recommended for students interested both in basic light microscopic histochemical techniques and in individual research projects in cytology. Three Closs Hours (3 credits) or Three Closs Hours, Three Laboratory Hours (4 credits).

424. Introduction to Radiation Biology. Fall (3) Mr. Aceto.

A study of the biological effects of radiation. Interaction of radiation with matter, basic mechanisms of radiation injury, biological manifestations of radiation damage.

426. Aquatic Ecology. (S) Spring (4) Staff. Prerequisites: Biology 311 or equivalent, and Biology 216 or Marine Science 410.

Introduction to the application of ecological principles to aquatic environments; discussion of the structure and function of selected communities; consideration of current areas of active research interest such as ecological succession, mathematical modeling, ecosystem theory, and biological competition. Three Class Hours, Three Laboratory Hours.

428. General Entomology. Spring (4) Mr. Fashing.

An introduction to the biology of insects designed to give the student an overview of entomology. Included are such topics as classification, morphology, physiology, behavior, ecology, and economic importance. Three Class Hours, Four Laboratory Hours.

431. Physiological Ecology of Plants. Fall (3) Mr. Mathes and Mr. Ware.

Consideration of the effects of environment on the growth, physiology, and distribution of plants. The factors which determine the adaptability of plants to various habitats will be discussed.

495-496. Honors. Fall and Spring (3, 3) Staff.

Honors is independent study for superior students in Biology. It consists of readings in the field of the student's interest with emphasis on the original literature, the preparation and presentation of an Honors Essay based on the student's own research, and satisfactory completion of a comprehensive examination in the subject area of the research. Hours to be arranged.

BIOLOGY

GRADUATE PROGRAM

The department offers the degree of Master of Arts. For degree requirements, and a full description of graduate courses in biology, write to the department chairman for a Graduate Catalog.



Chemistry

ASSOCIATE PROFESSOR KIEFER (Chairman of the Department). PROFESSORS ARM-STRONG, DJORDJEVIC, HILL, QUAGLIANO) and TYREE. ASSOCIATE PROFESSORS KRANBUEHL, ORWOLL, SCHIAVELLI, and THOMPSON. ASSISTANT PROFESSOR COLEMAN, INSTRUCTOR KATZ.

The student concentrator in Chemistry is afforded the maximum variety of options upon graduation, as exemplified by what recent graduates are now doing. Many go directly into professional life as employees of private industry or governmental agencies in jobs as varied as: secondary school teacher, computor scientist, laboratory scientist, government inspector, the Peace Corps overseas, plant production, and research associate. Others find their background equally acceptable as qualification for entrance into Medical School, Dental School, Graduate School in Chemistry, Biology, Chemical Engineering, Metallurgical Engineering, Law, or Business. Thus the thrust of the Department of Chemistry is to educate its concentrators for a profession of the individual's choice. Such has been true for several decades since numbered among the more senior departmental alumni are medical doctors, lawyers, dentists, executives of large corporations, directors of research, secondary school teachers, university professors, research scientists and administrators.

Each concentrator is encouraged to engage in a research project in association with a member of the departmental faculty at some time during his period of matriculation. For some this takes the form of full-time work for a summer between the junior and senior years. More often the project will be part-time during the senior year. Occasionally a student will continue on a project for two or more years, part-time, starting rather early in his undergraduate curriculum for a few hours a week.

While the principal goal of the department is to impart scientific competence to its concentrators, the relationship of science (and its methodology) to society as a whole is stressed as well.

REQUIREMENTS FOR CONCENTRATION

The minimum number of semester credits required for concentration in Chemistry is 36. In the normal program this must include Chemistry 101 or 103; either the sequence 102-201-202 or the sequence 104-203-204; 301 (including laboratory); 302 (including laboratory); 303; and 304. The department also offers a concentration with a biochemical option. This program must include Chemistry 101 or 103; either the sequence 102-201-202 or the sequence 104-203-204; 301 (including laboratory); 302 (including laboratory); and 304. The remaining 9 credits are electives which are chosen from advanced level chemistry courses (300 level and above), Cellular Physiology (Biology 405) and Biochemistry (Biology 414). The program chosen under this option must have the approval of the Chairman of the Department, Neither Chemistry 105-106 nor more than three credit hours from Chemistry 409, 495, and 496 may be counted among the 36 credits required for concentration. No more than seven semester credits from Chemistry 409, 495, and 496 may be applied toward a degree. Concentrators should complete the 200-level courses before their junior year, Math 212, Physics 101-102, and a reading knowledge of German, French, or Russian are strongly recommended.

The Department offers small sections of Chemistry 101. They are designed for students expressing an especial interest in chemistry.

¹ Visiting Professor, 1974-75.

DESCRIPTION OF COURSES

101, 102. Introduction to Chemistry. (A) Fall and Spring (4, 4) Mrs. Quagliano and Mr. Tyree.

An introduction to the study of the common non-metallic and metallic elements with emphasis upon chemical laws and the development and application of chemical principles. Strongly recommended for students expecting to concentrate in chemistry. 101: Three class hours, four laboratory hours in alternate weeks, one hour demonstration in alternate weeks. 102: Three class hours, four laboratory hours.

103. General Chemistry. (A) Full (4) Mr. Kiefer and Staff.

An introduction to atomic structure, chemical bonding, chemical reactions, and the states of matter. Recommended for students planning a science-oriented career other than chemistry. Three class hours, four laboratory hours in alternate weeks, one hour demonstration in alternate weeks.

105, 106. Chemistry: A Cultural Approach. (A) Fall and Spring (3, 3) Mr. Thompson.

A contemporary approach to the concepts of chemistry emphasizing the role of chemistry in today's society. Designed for the non-science major.

104-203-204. Chemistry and Life. (4, 4, 4) Prerequisite: Chemistry 101 or 103.

This course sequence is designed for students planning a career in medicine or the life sciences.

- 104. Organic Chemistry. (A) Spring. Mr. Hill and Staff, An introduction to the functional groups of organic chemistry. Emphasis is placed on the principles of structure and reactivity of organic molecules found in living systems. Three class hours, four laboratory hours in alternate weeks, one hour demonstration in alternate weeks.
- 203. Organic Chemistry. (AS) Fall. Hill and Staff. A continuation of the development of the chemistry of organic functional groups started in Chemistry 104. Particular emphasis is placed on the role of metals in living systems and the biosynthesis of organic molecules. Three class hours, four laboratory hours in alternate weeks, one hour demonstration in alternate weeks.
- 204. Physical and Bioanalytical Chemistry. (AS) Spring. Mr. Schiavelli and Staff. The application and use of thermodynamics, chemical kinetics, quantitative analysis, and instrumental techniques to the structure and function of chemicals in living systems. Three class hours, four laboratory hours in alternate weeks, one hour demonstration in alternate weeks.
- **201-202. Organic Chemistry.** (AS) Fall and Spring (4, 4) Messrs. Coleman and Schiavelli, Prerequisite: Chemistry 102.

Chemistry of organic compounds. Chemical properties are correlated with electronic and three-dimensional aspects of the compounds of carbon. Recommended for students planning a career in chemistry. 201: Three class hours, four laboratory hours in alternate weeks, one hour demonstration in alternate weeks. 202: Three class hours, four laboratory hours.

301. Introductory Physical Chemistry I. (S) Fall (3 or 4) Messrs. Kranbuehl and Orwoll. Prerequisites: Chemistry 102 or 104 and Math 112. Prerequisite or corequisite: Physics 101 or 103.

The states of matter, thermodynamics, and electrochemistry. Three class hours (3 credits) or Three class hours, four laboratory hours (4 credits).

302. Introductory Physical Chemistry II. (S) Spring (3 or 4) Messrs. Kranbuehl and Orwoll. Prerequisite: Chemistry 301 or consent of the instructor. Prerequisite or corequisite: Physics 102 or 104.

Chemical kinetics, spectroscopy, quantum mechanics, crystallography, and introductory statistical mechanics. Three class hours (3 credits) or Three class hours, four laboratory hours (4 credits).

303. Quantitative Analysis. (S) Foll (3) Mr. Armstrong. Prerequisite: Chemistry 102 or 104.

Volumetric and gravimetric analysis. Two class hours, four laboratory hours.

304. Instrumental analysis. Spring [3] Mrs. Djordjevic. Prerequisites: Chemistry 301 and 303.

Principles and applications of instruments to chemical analysis. Two closs hours, four laboratory hours.

305. Inorganic Chemistry. (S) Fall (3) Mrs. Djordjevic. Prerequisite: Chemistry 202 or 204 or equivalent.

Study of the properties and reactions of chemical elements and their compounds.

401. Advanced Physical Chemistry. Fall (3) Mr. Orwoll. Prerequisite: Chemistry 302.

Introduction to theoretical chemistry, quantum mechanics, molecular spectroscopy, and statistical mechanics.

402. Advanced Inorganic Chemistry. Spring (3) Mr. Thompson. Prerequisite or Corequisite: Chemistry 302.

Principles of physical chemistry and quantum mechanics applied to the study of the structures and reactions of inorganic substances.

403. Advanced Organic Chemistry. Fall [3] Mr. Coleman. Prerequisite: Chemistry 202. Prerequisite or Corequisite: Chemistry 301.

A structure-reactivity approach to reaction mechanisms, applications of spectroscopic methods to structural analysis and modern synthetic chemistry.

405. Modern Laboratory Techniques. Fall (3) Messrs. Coleman and Thompson. Prerequisite: Chemistry 304 or equivolent.

A laboratory course providing exposure to modern experimental techniques in all areas of chemistry. One class hour, six laboratory hours.

406. Radiochemistry. Spring [3] Mr. Kiefer. Prerequisite or Corequisite: Chemistry 302.

A study of radioactive decay; interaction of radiation with matter; nuclear structure; nuclear reactions; radiochemical techniques.

409. Introduction to Chemical Research. Fall and Spring (hours and credits to be arranged). Staff.

A course for the advanced student affording an opportunity for individual work on a problem under the supervision of an individual faculty member. May be taken with the consent of the Department.

412. Introduction to Macromolecules. Spring (3) Messrs. Orwoll and Kranbuehl. Prerequisite or Corequisite: Chemistry 302 or consent of the instructor.

A study of the relationship of chemical and physical properties of synthetic and biological polymers to their molecular structure.

CHEMISTRY

495-496. Honors. Fall and Spring (3, 3) Staff.

Students admitted to Honors Study in Chemistry will be enrolled in this course during both semesters of their senior year. The requirements include a program of research in chemistry with readings from the original literature, the preparation and presentation of an Honors Essay based on the student's reading and research, and the satisfactory completion of a comprehensive examination in the subject area of the research. Hours to be arrunged.

GRADUATE PROGRAM

The department offers the degree of Master of Arts. For degree requirements, and a full description of graduate courses in chemistry, write to the department chairman for a graduate catalog. Attention is also called to the Graduate Program in Applied Science on p. 181.

Classical Studies

PROFESSORS JONES (Chairman of the Department) and LEADBEATER. ASSOCIATE PROFESSOR REILLY, ASSISTANT PROFESSORS BARON and C. ESLER.

PROGRAM

The principal objectives of the Department of Classical Studies are two:

1. To contribute broadly to the humanistic education of the undergraduate student both through courses involving the reading of the original Greek and Latin literatures and through courses conducted in English in the area of Classical Civilization;

2. To offer those students who wish it a specialized training in the Greek and Latin languages or in Classical Civilization for vocational or professional purposes.

In recent years, a large number of graduates have become teachers at the secondary level or have continued their study of the Classics in graduate school. Equally as many others have used their undergraduate training as a basic educational background for various businesses, occupations and professions.

AREA AND SEQUENCE REQUIREMENTS

Students electing to meet, in Classical Studies, the general College requirement of a sequence of four courses will normally be expected to complete four courses in a single subject field; i.e., Greek or Latin or Classical Civilization. Comparative Literature 201-202 may be combined with two advanced literature courses in Classical Studies to form a sequence.

CONCENTRATION REQUIREMENTS

The Department of Classical Studies offers concentrations in three subject fields: Greek, Latin, and Classical Civilization.

A concentration in Greek consists of a minimum of 27 hours taken in the Department of Classical Studies, exclusive of courses in Classical Civilization. A minimum of six hours of Latin is required.

A concentration in Latin consists of a minimum of 27 hours taken in the Department of Classical Studies, exclusive of courses in Classical Civilization. A minimum of six hours of Greek is required.

A concentration in Classical Civilization consists of a minimum of 35 hours divided as follows:

- (1) 8 hours of elementary Latin or Greek
- (2) 27 hours from courses listed below under the heading "Classical Civilization" (pp. 89–90) or included in the following list: Anthropology 301, Anthropology 352, Fine Arts 403, Government 303, History 311, Philosophy 422 (Plato or Aristotle), Religion 220, Religion 305, Theatre 315. Among the courses selected must be 18 hours representing three one-year sequences from three of the following areas: Classical Literature, Classical History, Classical Art & Archaeology, Classical Philosophy.

NOTE: All students concentrating in Greek, Latin, or Classical Civilization will be required to demonstrate on examination a knowledge of Classical literature and of the history of the ancient world. (Requirement may be met by completing satisfactorily Classical Civilization 207, 208, 311, and 312).

¹On leave, 1974-75.

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CLASSICAL STUDIES

DESCRIPTION OF COURSES

101-102 Elementary Greek. Fall and Spring (4,4) Mr. Leadbeater.

The elements of the Greek language with translation of stories and poems from selected readers. Parallel study of aspects of Greek civilization and of the legacy left by Greek culture and thought to the modern world.

201. Introduction to Greek Literature: Prose. (A) Fall (3) Mr. Baron. Prerequisite: Greek 102.

A course designed to introduce the student to the basic syntactical and stylistic elements of 5th-4th cent. B.C. Attic prose through an intensive examination of selected works of Plato, Lysias, and Thucydides. Emphasis will be placed on literary techniques and the comprehension and appreciation of Greek in Greek rather than in English.

202. The Literature of Greece: Prose and Poetry. (A) Spring (3) Mr. Baron. Prerequisite: Greek 201.

Continued analysis of the style, compositional techniques and content of representative prose writers, such as Plato, Aristotle, Herodotus, and Xenophon. In the second half of the semester the student will be introduced to the form and content of dramatic poetry through the reading of one of the tragedies of Sophocles or Euripides.

*Greek Literature Cycle. Fall or Spring (3) Mr. Leadbeater and staff. Prerequisite: Greek 202 or permission of the instructor.

The following courses are offered as the needs and wishes of students in the Department in any year may demand and as staff is available.

- 301. Philosophy—Plato (AS)
- 302. New Testament—The Gospels, Acts and Epistles. (AS)
- 303. Homer—Selections from Iliad and Odyssey. (AS)
- 304. Philosophy—Aristotle. (AS)
- 305. Attic Orators (AS)
- 402. Herodotus. (AS)
- 403. Thucydides (AS)
- 404. Lyric Poetry. (AS)
- 405. Greek Tragedy—Aeschylus, Sophocles, Euripides. (AS)
- 406. Greek Comedy—Aristophanes and Menander. (AS)
- 490. Topics in Greek—Course may be repeated if readings differ. (S)

Latin

101-102. Elementary Latin. Fall and Spring (4.4) Mr. Baron. Students who have acquired two high school units in Latin may not take Latin 101, 102 for credit.

This course is designed to equip the student with a mastery of the structure of the Latin language and with a knowledge of basic vocabulary. There are translations from appropriate Latin texts and parallel study of pertinent aspects of Roman life and history.

CLASSICAL STUDIES

201, 202. Introduction to Latin Prose and Poetry. (A) Fall and Spring (3,3) Mrs. Esler. Prerequisite: at least two units of high school Latin or Latin 101, 102.

In the first semester (201) there is a review of the elements of the language and the reading of passages from selected authors with emphasis upon Cicero, with parallel study of the history and institutions of Republican Rome. In the second semester (202) there is reading of selected books of Vergil's *Aeneid* with parallel study of the history and institutions of the Empire and of the epic and its influence upon subsequent literature.

NOTE: A student who has had three years of Latin in high school and read Latin prose in the third year may not take Latin 201 for credit, but may take Latin 202. A student who has had three years of Latin in high school and read Latin poetry in the third year may not take Latin 202 for credit, but may take Latin 201. A student who has had four years of Latin in high school may take neither Latin 201 nor Latin 202 for credit.

249, 250. Literature of the Republic and the Empire. (AS) Fall and Spring (3,3) Mr. Jones. Prerequisite: three or four units of high school Latin or Latin 201, 202.

The reading of selections from a number of important writers of the periods of the Republic and Empire.

*Latin Literature Cycle. Fall or Spring (3) Mr. Jones and Mrs. Esler. Prerequisite: Latin 249, 250 or equivalent.

The following courses are offered as the needs and wishes of students in the Department in any year may demand and as staff is available.

- 301. Cicero's and Pliny's Letters. (AS)
- 302. Latin Lyric: Catullus and Horace. (AS)
- 303. Cicero's Orations (AS)
- 304. Elegiac Poets: Propertius, Ovid, Tibullus. (AS)
- 305. Roman Comedy: Plautus and Terence. (AS)
- 307. Roman Private Life: A study based on the Latin authors. (AS)
- 308. Latin Composition based upon a Classical Model.

Reading of such Latin prose authors as Caesar, Cicero, and Nepos followed by the writing of connected Latin passages in imitation of their style.

- 310. Medieval Latin-Prose and Poetry. (AS)
- 401. Horace's Sotires and Epistles. (AS)
- 402. The Latin Historians. (AS)
- 404. Vergil—The Latin Epic (AS)
- 405. The Teaching of High School Latin. Same as Education S305. Development of the Latin curriculum, methods of presentation, audio-visual aids, materials.
 - 406. Satires of Juvenal and Epigrams of Martial. (AS)
 - 407. Lucretius-De Rerum Natura. (AS)
 - 408. The Latin Novel: Petronius or Apuleius. (AS)
 - 490. Topics in Latin.—Course may be repeated if readings differ. (S)

GRADUATE COURSES—GREEK AND LATIN

500. Special Topics. Summer only (3) Staff. This course may be repeated if the topic is basically different.

A. Seminar in Greek Literature. Intensive study of individual Greek authors or genres, varying from year to year in accordance with the students' needs;

B. Seminar in Latin Literature. Intensive study of individual Latin authors or genres, varying from year to year in accordance with the students' needs.

LATIN 510T. The Programmed Latin Course. Summer only (3) Staff.

CLASSICAL CIVILIZATION

For the following courses, a knowledge of Latin or Greek is not required. Courses numbered in the 200's are open to *all* students of the College. Courses numbered in the 300's and 400's are open to *sophomores*, *juniors*, and *seniors*.

Classical Civilization 150. Freshman Seminar. Fall (3) Mr. Jones. Buried cities of Vesuvius; Pompeii, Herculaneum, and Stabiae.

Classical Civilization 205. Greek and Roman Mythology. (A) Fall and Spring (3) Mr. Baron.

The origins and development of Classical mythology and heroic legend as religious belief, its relation to other mythologies, and its adaptation as literary and artistic symbol from Homer through the twentieth century A.D.

Classical Civilization 207. Greek Literature. (A) Fall (3) Mr. Baron and Mrs. Esler.

A survey of the literary developments of ancient Greece which have influenced the form and content of European literature down to the present day. Areas studied include epic and lyric poetry, tragedy and comedy, historiography and rhetoric, and the philosophical dialogue.

Classical Civilization 208. Latin Literature. (A) Spring (3) Mr. Baron and Mrs. Esler.

A survey of Latin literature: both the classical Roman adaptation of our inheritance from Greece and the development of native traditions from the days of the Roman Republic through the Middle Ages. Topics include Roman comedy, the Latin epic, Classical and medieval lyric, satire, and ancient and medieval prose forms.

Classical Civilization 217. Greek Archaeology and Art. (AS) Fall (3) Mrs. Reilly.

An archaeological consideration of the Minoan, Mycenaean, Archaic and Classical periods of Greek civilization. Architecture, sculpture, painting and the minor arts are included. (Not offered 1974-75)

Classical Civilization 218. Roman Archaeology and Art. (AS) Spring (3) Mrs. Reilly.

The architecture, painting and sculpture of Hellenistic Greece and of Rome until the 4th c. AD. from the archaeological viewpoint. Byzantine art as found in Greece and Italy will also be included. (Not offered 1974-75)

Classical Civilization 311, 312. Ancient History. (AS) Fall and Spring (3,3) Mr. Jones.

Ancient Civilization from prehistoric times to the downfall of the Roman Empire. The first semester deals with the ancient Orient and Greece; the second semester with Rome. This course is the same as History 301, 302.

Classical Civilization 331. Greek Philosophy (S) Fall (3) Mr. Cobb. Prerequisites: Two courses in Philosophy or consent of the instructor.

A critical examination of representative Greek philosophers with special emphasis on Plato and Aristotle. This course is the same as Philosophy 331.

Classical Civilization 401. Greek and Latin Epic. (S) Fall or Spring (3) Staff.

Careful reading, in English, of Homer's *Iliad* and *Odyssey*, Vergil's *Aeneid*, Lucan's *Phorsalia*. Discussion of the character and structure of the Classical epic and its influence on European epic and novel. This course is the same as Comparative Literature 301.

Classical Civilization 402. The Greek and Roman Historians. (S) Foll or Spring (3) Staff.

The study, in translation, of the major historians of Greece and Rome, including Herodotus, Thucydides, Livy, and Tacitus, with particular regard to content, literary and historical technique, and historical perspective.

Classical Civilization 403. Classical Tragedy and Its Influences. (S) Fall or Spring (3) Mr. Leadbeater.

Readings, in English, and discussion of the major works of Aeschylus, Sophocles, Euripides, and Seneca. Parallel readings in the theories of tragedy and of representative works, illustrating the influence of Classical Tragedy on subsequent literary history. This course is the same as Comparative Literature 305.

Classical Civilization 404. Ancient Comedy and Its Influences. (S) Fall or Spring (3) Mr. Leadbeater.

A study, in translation, of representative works of Aristophanes, Menander, Plautus, and Terence. Parallel readings in the theories of comedy and of representative works illustrating the influence of Ancient Comedy on subsequent literary history. This course is the same as Comparative Literature 306.

Classical Civilization 405. Later Greek Philosophy. (S) Fall or Spring (3) Mr. Leadbeater.

A study of the later aspects of Greek philosophy as they took form in Neo-Platonism and the Second Sophistic Movement. The course is intended to be an examination of Platonism as it developed in the philosophies of Plotinus, Iamblichus, Julian, and others. Emphasis will be placed on the mysticism of the age and the reaction of and influence on Christian thought as revealed in selected readings from the Church Fathers.

Classical Civilization 490. Special Topics in Classical Civilization. (S) Fall or Spring (3) Staff.

A study in depth of some particular aspect of Greco-Roman culture. This course is intended for the student who already has some background in Classical Civilization. The course may be repeated if the topic is basically different.

Classical Civilization 500T. The Classical Humanities in the High School curriculum. Summer only (3) Mr. Leadbeater.

HONORS STUDY

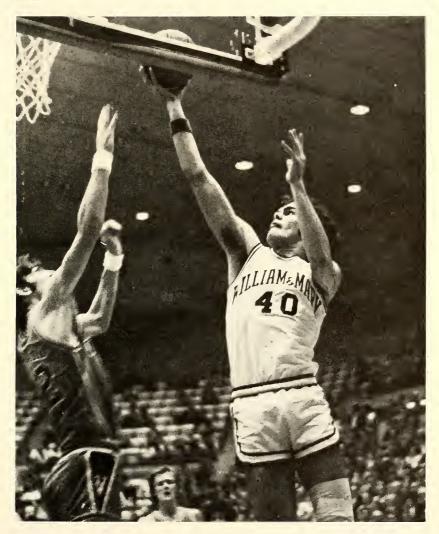
495, 496. Honors. Fall and Spring (3,3) Staff.

The Department of Classical Studies offers Honors Study in Greek or Latin as staff is available. Students admitted to this study will be enrolled in the course during both

¹Associate Professor of Philosophy.

CLASSICAL CIVILIZATION

semesters of their senior year. The course comprises: (a) reading and discussion of selected authors in the language of the student's emphasis. Greek or Latin; (b) supervised reading of a special bibliography in the field of the student's major interests; (c) satisfactory completion by May 1, of a scholarly essay; and (d) satisfactory completion of a comprehensive oral examination in the field of Greek and Latin Literature.



COMPARATIVE LITERATURE

ASSOCIATE PROFESSOR LEADBEATER; ASSISTANT PROFESSORS HALLETT (Chairman of the Committee) AND WIGGINS.

Courses in Comparative Literature fulfill Area and Sequence requirements in Area 1. Students may complete a sequence in Comparative Literature by taking Comparative Literature 201, 202 and two of the courses on the 300 level listed below or any two advanced literature courses in the departments of Classical Studies, English, or Modern Languages, including courses in literature in translation. An interdisciplinary concentration in Comparative Literature is available upon petition to the Committee for Comparative Literature and the Committee on Interdisciplinary Study.

201, 202 Concepts in Comparative Literature. (A) Fall and Spring (3,3) Mr. Leadbeater, Mr. Hallett, and Mr. Wiggins.

An introduction, through the critical examination of selected literary works of major importance from various periods, to the major modes and techniques of comparative literature, Modes such as genre, literary devices, and chronological development of literary concepts will be examined from a comparative point of view.

203, 204 The Literature of East Asia. (A) Fall and Spring (3,3) Mr. Canning.

An introduction to major works in Chinese and Japanese literature, including *The Book of Odes* and other Confucian classics, poetry, drama and the classic Japanese novel *The Tale of Genji*. Spring semester the Chinese folk novel *Monkey* and short stories and novels by Mishima, Kawabata, Tanizaki and other leading Japanese authors will be covered.

301. Greek and Latin Epic and its Influence. (S) $Fall\ or\ Spring\ [3]\ Mr.$ Baron. (Same as Classical Civilization 401)

Careful reading, in English, of Homer's *Hiad* and *Odyssey*, Vergil's *Aeneid*, and Lucan's *Pharsalia*. Discussion of the character and structure of the Classical Epic and its influence on European epic and novel.

302. Epic and Romance. (S) Fall (3) Mr. Wiggins. (Same as English 435)

An intensive study of the development of these major genres, with illustrative works drawn from ancient, Medieval and Renaissance authors.

303. The World Novel. (S) Spring (3) Mr. Meyers. (Same as English 436)

An intensive study of selected works of fiction primarily by European authors from the eighteenth century to the present.

304. Contemporary French Novel and its Influence. (S) Spring (3) Mr. Hallett. (Same as French 388)

A study, in English translation, of trends in the Modern French Novel and their influence on contemporary literature.

^{*} 305. Classical Tragedy and Its Influences. (S) Fall (3) Mr. Leadbeater. (Same as Classical Civilization 403)

Readings, in English, and discussion of the major works of Aeschylus, Sophocles, Enripides, and Seneca. Parallel readings in the theories of tragedy and of representative works, illustrating the influence of Classical Tragedy on subsequent literary history.

COMPARATIVE LITERATURE

306. Ancient Comedy and its Influences. (S) Spring (3) Mr. Leadbeater. (Same as Classical Civilization 404)

A study, in translation, of representative works of Aristophanes, Menander, Plautus, and Terence. Parallel readings in the theories of comedy and of representative works illustrating the influence of Ancient Comedy on subsequent literary history.

307. Contemporary French Theatre and its Influence. (S) Fall (3) Mr. Coke. (Same as French 387)

A study, in English translation, of trends in Modern French theatre and their influence on contemporary drama.

401. Lyric Poetry. (S) Fall and Spring (3,3) Mr. Leadbeater and Mr. Wiggins.

An intensive study from a comparative point of view of the development of lyric poetry. Emphasis will be on lyric from the Classical through the Renaissance periods, although some lyric from other periods will be included as the needs of the course demand.



Economics

PROFESSORS GARRETT and SCHIFRIN (Chairman of the Department). ASSOCIATE PROFESSORS BAKER, BARRY, HAULMAN, and MATTHEWS. ASSISTANT PROFESSORS FINIFTER, MOODY, and SANDERSON.

The program in Economics is designed to offer courses of study that provide foundations for enrollment in professional programs such as Law and Business, for advanced work in Economics, and for careers as economists after completion of the B.A. degree, and for enrollment in professional programs such as Law and Business.

REQUIREMENTS FOR CONCENTRATORS

Concentration in Economics requires a minimum of thirty semester hours of courses in Economics beyond Economics 101, 102. All concentrators are required to take the following courses:

- 303 Intermediate Economic Theory: Microeconomics
- 304 Intermediate Economic Theory: Macroeconomics
- 307 Principles and Methods of Statistics

Special programs may be arranged in which these required courses can be waived by permission of the Department.

The Department offers as Freshman Seminars introductory courses on contemporary economic issues and problems.

DESCRIPTION OF COURSES

101, 102. Principles of Economics. (A) Fall and Spring (3,3). This course is a prerequisite to all courses in Economics except 307. Staff.

An introduction to the analytical tools commonly employed by economists in the study of the determination of the composition of output, prices, and the aggregate level of economic activity. Problems related to these subjects are considered, and alternative courses of public policy are evaluated.

150. Freshman Seminar. Fall and and Spring (3) Staff.

A survey of selected contemporary economic issues and problems, with an introduction to the methods of economic analysis useful in understanding them.

303, 304. Intermediate Economic Theory. (S) Fall and Spring (3,3) Mr. Barry, Mr. Moody, and Mr. Haulman. Prerequisite: Econ. 101, 102.

The first semester is devoted to the theory of resource allocation in a market economy. The second semester is devoted to the theory of national income determination.

307. Principles and Methods of Statistics. Fall and Spring (3) Mr. Moody and Mr. Baker.

A study of the principles and uses of frequency distribution, measures of central tendency and dispersion, statistical inference, sampling, correlation and regression analysis. Two Class Hours, Two Laboratory Hours.

311. Money and Banking. (S) Fall (3) Mr. Matthews, Mr. Barry, and Mr. Haulman. Prerequisite: Econ. 101, 102.

An analysis of the monetary system with emphasis upon determinates of the money supply and the relationship between money and economic activity.

ECONOMICS

412. Stabilization Policy, (S) Spring (3) Mr. Barry. Prerequisites: Econ. 101, 102, 304 or 311.

Analysis of stabilization policy with emphasis on the joint impact of monetary and fiscal policies with respect to the objectives of full employment, economic growth, and price stability.

421. Public Finance. (S) Fall (3) Mr. Baker. Prerequisites: Econ. 101, 102.

Theory and principles of public finance, with emphasis on federal, state, and local taxes and expenditures, the fiscal decision process, intergovernmental fiscal relations, and cost-benefit analysis.

422. Economics of the Environment. (S) Spring (3) Mr. Baker. Prerequisites: Economics 101, 102.

The application of efficiency and equity criteria to environmental issues. Topics will include natural resource economics and problems of congestion.

431. Introduction to Mathematical Economics I. (S) Fall (3) Mr. Moody. Prerequisites: Econ. 101, 102.

A survey of mathematical techniques widely used in economics including topics in set theory, linear algebra, linear programming and game theory. Emphasis will be on the economic applications of these methods.

432. Introduction to Mathematical Economics II. (S) Spring (3) Mr. Moody. Prerequisites: Econ. 101, 102, 431.

The topics covered in this course are selected from among differential and integral calculus, optimization techniques and differential equations, with emphasis on the economic content and application of the techniques.

341 American Economic History. (S) Fall (3) Mr. Sanderson. Prerequisites: Econ. 101, 102, or permission of instructor.

A study of the major trends and developments in the American economy from colonial times through the New Deal. Emphasis is on the use of economic theory and quantitative methods in the study of history.

441. Topics in Economic History. (S) Spring (3) Mr. Sanderson. Prerequisites: 101, 102, or permission of instructor.

An examination of current research work in United States and European economic history and the recent contributions of the New Economic Historians. Major sections include slavery, the economic role of government, and strategic factors in economic growth.

444. Regional Economic Growth and Planning: Emphasis on the South. (S) Spring (3) Mr. Garrett. Prerequisites: Econ. 101, 102.

A study of regional economic development with emphasis on the South. The course includes an analysis of systems of cities, metropolitan areas and small urban areas as separate subregions and their role in the contemporary growth of larger regions. Models of regional growth and institutionalism are combined to provide a better perspective for regional planning.

Economics 345—Urban Analysis. (S) Fall (3) Mr. Garrett. Prerequisites: Econ. 101, 102 and permission of instructor.

The course incorporates an interdisciplinary approach in analyzing contemporary urban problems. A model simulating the growth of an urban area is utilized throughout the course.

ECONOMICS

446. History of Economic Thought. (S) Fall (3) Mr. Haulman. Prerequisites: Econ. 101, 102.

The development of economic analysis with emphasis upon Classical and Marxian economics.

451. Labor Market Analysis. (S) Fall (3) Mr. Finifter. Prerequisite: Econ 101, 102.

An analysis of the empirical evidence and theories of labor demand and labor supply with special emphasis on wage differentials, the unemployment—inflation tradeoff, the impact of labor unions on the economy, and manpower policy problems.

452. The Economics of Human Resources. (S) Spring (3) Mr. Finifter. Prerequisite: Economics 101, 102.

An examination of trends in poverty, income distribution, and manpower development policy. The concept of human capital is studied in detail, with special reference to education, health, and labor migration as human capital investments.

455. Population Economics. (S) Spring (3) Mr. Haulman. Prerequisites: Econ. 101, 102.

The study of the relationship of economics and population with a view toward analyzing the role of population change in models of economic growth and development and discussing the economic determinants of demographic behavior using models of economic decision-making.

361. Government and Business. (S) The Enforcement of Competition. Fall (3) Mr. Baker and Mr. Schifrin. Prerequisites: Econ. 101, 102.

An analysis of the factors that influence and determine business conduct and market performance. Special emphasis is given to the philosophy and features of the antitrust laws and to the enforcement of market competition through their application.

462. Government Regulation of Business. (S) Spring (3) Mr. Baker and Mr. Schifrin. Prerequisites: Econ. 101, 102.

An analysis of the principles and purposes of government regulation of business in certain sectors of the economy where competition may not be workable, including public utilities, transportation, agriculture, defense procurement, and scientific research and development.

471. International Economics. (S) Fall (3) Mr. Matthews. Prerequisites: Econ. 101, 102.

This course develops the theory of international trade from the Mercantilists to the modern economists. The objective is to give the student basic knowledge of analytical tools used by economists in the study of international economic problems.

472. International Trade and Policies. (S) Spring (3) Mr. Matthews. Prerequisites: Econ. 101, 102.

This course analyzes historically problems in tariffs and other protectionist devices, the effect of economic development on the pattern of world trade, and problems in balance of payments equilibrium, foreign exchange, and international finance. Particular attention is focused on international economic developments since World War II.

482. Comparative Economic Systems. (S) Fall (3) Mr. Rushing. Prerequisites: Econ. 101, 102.

Primarily a study of the development and present structure of the Soviet economy, with comparative analysis of the Soviet and Western experiences.

ECONOMICS

490. Topics in Economic Policy. Fall and Spring (3) Staff. Prerequisites: Concentration in Economics, Senior standing and permission of instructor.

A directed readings course conducted on an individual or group basis on various topics in economic policy.

Topics in Government and Economic policy may be same as Government 490.

495, 496. Honors. Fall and Spring (3) Staff.

Advanced study on a tutorial basis the first semester. In the second semester each student undertakes independent research on a selected topic and presents an Honors Essay. Each Honors student is responsible for (a) the supervised reading of a selected list of books in economics; (b) satisfactory completion by May 1 of an original essay, or other scholarly projects in the field of economics; and (c) satisfactory performance on a comprehensive oral examination. A student who completes the Honors Essay but does not achieve Honors may be given credit for Economics 490.

English Language and Literature

PROFESSORS DOLMETSCH (Chairman of the Department), DAVIDSON, DONALDSON, EVANS, JENKINS, McCULLEY, NEIMAN and SMITH. ASSOCIATE PROFESSORS BALL, CONLEE, DAVIS, ELLIOTT, FEHRENBACH, MACCUBBIN, NETTELS, SCHOLNICK and WILLIS. ASSISTANT PROFESSORS DAW, FREEMAN, HARRIS, HEACOX, MEYERS, SAVAGE, SOUTHARD, WENSKA and WIGGINS, INSTRUCTORS ELIAS, GREENE, KERST, REID, SPROAT and THOMPSON. ADJUNCT LECTURER MARLOWE.

THE PROGRAM IN ENGLISH

The Department of English Language and Literature provides numerous distinctive opportunities for the full humanistic development of the individual student, ranging from the development of skills in written communication through increased sensitivity to language and awareness of the aesthetic and intellectual enjoyments of literature to an understanding of the cultural values reflected in that literature.

The Department attempts to fulfill several specific obligations within the liberal arts program of the College. On behalf of the faculty as a whole, it provides formal instruction in the elements of English composition. In order to contribute effectively to the area and sequence components of the general curriculum, the Department also offers courses designed to introduce the student to the essential nature of literature and literary study. In addition, the rich and varied program of course offerings in English, American and comparative literatures, linguistics and writing is designed to meet the elective needs of a highly diverse group of students who are not English concentrators.

In its concentration program the Department aims to provide simultaneously for the needs of students who are seeking certification to teach in the public schools, of those who are preparing for graduate study in English, and of those who choose English simply because they enjoy the disciplined study of literature and language and respond to its humanizing influence or who find such study an appropriate liberating experience in advance of their entering upon professional studies in other fields, such as law, medicine, psychology and theology. In order to satisfy all of these particular needs at once, the Department has devised a single, unified program of concentration that affords the student unusual freedom in his choice of courses, teachers and learning experiences. The English concentrator is asked to satisfy a pattern of distribution in the Department rather than to take specific courses.

AREA AND SEQUENCE REQUIREMENTS

Area and sequence requirements in Area I may be satisfied by choosing courses in either literature or linguistics. Students are advised to follow one of the following patterns:

1. Literature: The area requirement would be met by two courses in the 200-level, excluding English 211. The Department strongly recommends that students begin with English 201, "The Art of Literature," and further recommends that the sequence requirement be met by two additional courses chosen from among those numbered above 300 which belong to the same group as the second course elected for the area requirement. Course groups in literature are indicated in the course descriptions by the following Roman numerals: I. (English Literature); II. (American Literature); III. (General Literature, including courses in Comparative Literature).

2. Linguistics: The area requirement would be met by English 211, "The Study of Language," and either 403 or 404. The sequence requirement would be met by choosing two additional courses having the Roman numeral designation IV (Linguistics).

¹ On leave-of-absence Spring 1975

² On leave-of-absence Fall, 1974

³ On leave-of-absence, 1974-75

REQUIREMENTS FOR CONCENTRATION

A concentration in English requires a minimum of 36 credits in departmental courses (exclusive of English 101) at least 27 of which must be in courses numbered 300 and above, including the following:

I. At least three courses (9 credits) surveying periods of literature, chosen from the

group numbered English 312 to 364, inclusive.

II. At least one semester of study of a major author, chosen from among the following courses: English 413, 421, 422 or 426.

III. A Senior seminar, English 475. (A student who satisfactorily completes the Ju-

nior Honors seminar, English 494, is exempted from this requirement.)

English concentrators who do not offer courses in Comparative Literature in satisfaction of Area I requirements may include Comparative Literature 201 and 202 in the

first 36 credits of their concentration program.

Concentration courses are chosen by the student in consultation with a departmental advisor on the basis of the student's preparation, background, vocational expectations and further educational interests. A sound concentration program should include, in addition to the requisite courses in English, a coherent pattern of complementary courses in other departments and allied fields also chosen in consultation with the advisor.

DESCRIPTION OF COURSES

COLLEGE COURSES

101. Writing. Fall and Spring (3) Staff.

Practice in writing under supervision, with frequent conferences. Required of freshmen who are not exempted by test scores or special examination and recommended for all. Sections limited to fifteen students each.

150. Freshman Colloquium. Fall and Spring (3) Staff.

Exploration of a limited topic in literature or in the relationship of literature to other fields. Sections limited to fifteen students each, with emphasis upon oral participation and critical writing. Seminar topics are announced in advance of each semester so that the student may choose his section on the basis of interest, background and academic goals.

INTRODUCTORY COURSES

The following courses are especially designed for freshmen and sophomores. Upperclassmen may be admitted to them only upon consent of the Department Chairman.

201. The Art of Literature. (A. I, II, III) Fall and Spring (3) Staff.

An introductory course in critical reading and writing designed to increase the student's understanding and enjoyment of the literary arts. This course should normally be taken before the student proceeds to other area or concentration courses in English.

203. English Literary Traditions: Medieval and Renaissance. (A. I) Fall and Spring (3) Staff.

A study of works representing various traditions of English literature from the Middle Ages to 1700.

204. English Literary Traditions: The Eighteenth and Nineteenth Centuries. (A, 1) Fall and Spring (3) Staff.

A study of works representing various traditions of English literature from the Augustan through the Victorian Ages (1700-1900).

207. Major American Writers. (A. II) Fall and Spring (3) Staff.

Study of five or six American authors, emphasizing each writer's conception of his situation and role in American society. One or more continuing themes may also be emphasized.

208. Contemporary Literature. (A. I, II, III) Fall and Spring (3) Staff.

Reading and interpretation of selected contemporary works in more than one genre. Prerequisite: English 201.

211. The Study of Language. (A. IV) Fall and Spring (3) Staff.

An introduction to the scientific study of the elements of language, including sound and writing systems, grammatical approaches, social and regional language differences, and the backgrounds of American English. No prerequisites.

ADVANCED COURSES

301. Advanced Writing. Fall and Spring (3) Staff.

This course provides practice in writing papers of various types under supervision, emphasizing expository techniques. Sections limited to fifteen students each.

*302. Creative Writing. Spring (3) Mr. Heacox and Miss Thompson.

This course provides an opportunity for the student to develop his abilities in imaginative writing of various types, especially fiction and poetry, under supervision. Sections limited to fifteen students each. *Prerequisite*: English 101 or exemption from the degree requirements in writing. Consent of Instructor is required for enrollment.

(The student should have satisfactorily completed at least one 200-level English courses before enrolling for any of the following courses.)

312. Medieval Literature. (S. I) Spring (3) Mr. Davidson.

A survey of Old and Middle English literature.

323. The English Renaissance. (S. I) Fall (3) Mr. Fehrenbach.

A survey of the poetry, prose, and drama of Tudor England, including selected works of More, Sidney, Spenser, Marlowe, and Shakespeare.

324. The Early Seventeenth Century. (S. I) Spring (3) Mr. Evans.

A survey of poetry, prose, and dramatic forms from John Donne and Ben Jonson to 1660, including early poems of Milton and Marvell.

331. English Literature, 1660-1744. (S. I) Fall (3) Mr. Elias.

A survey of the period, including prose fiction and other genres. Emphasis upon satire.

332. English Literature, 1744-1798. (S. I) Spring (3) Mr. Maccubbin.

A survey of the period, including all genres and their cultural milieu. Emphasis upon "sensibility." $\,$

341. The English Romantic Period. (S. I) Fall (3) Mr. Elliott.

A survey of the dominant ideas and conventions of English romanticism as expressed primarily through the major poets and essayists of the period between 1798 and 1832.

342. The Victorian Age. (S. I) Spring (3) Mr. Neiman.

A survey of the major writers of England during the reign of Victoria. Emphasis is upon the social and intellectual issues as expressed primarily by leading poets and essayists from Carlyle to Hardy.

352. Twentieth Century British Literature. (S. 1) Fall or Spring (3) Mr. Heacox and Mr. Willis.

A survey of British writing from the period of the Celtic Renaissance to the present.

361. American Literature to 1836. (S. II) Fall (3) Mr. Wenska.

A survey of American literature from its beginning to the rise of Transcendentalism, emphasizing such writers as Edward Taylor, the Mathers, Edwards, Byrd, Franklin, Freneau, C. B. Brown, Cooper, Irving and Poe.

362. The American Renaissance. (S. II) Fall or Spring (3) Mr. Dolmetsch, Mr. Davis, and Mr. Wenska.

A survey of American writing in the mid-nineteenth century, emphasizing the writers of the "Concord Group," Hawthorne, Melville, Whitman, Dickinson and the Southwest Humorists.

363. American Literature, **1865-1920.** (S. II) Fall or Spring (3) Mr. Scholnick and Miss Nettels.

A survey of American literature from the "Gilded Age" to the end of the First World War, emphasizing such writers as "Mark Twain," Howells, James, Stephen Grane, Norris, Dreiser and the Regionalists.

364. American Literature since **1920.** (S. II) Spring (3) Mr. Davis, Mr. Donaldson and Mr. Scholnick.

A survey of American literature from the rise of the "Lost Generation" and the Southern Renascence to the present, emphasizing such writers as Hemingway, Fitzgerald, Faulkner, Steinbeck, Frost, O'Neill and later dramatists.

(N.B. In the following courses some background in the subject-matter of the relevant 200- and 300-level courses is assumed.)

*401, 402. Seminar in Creative Writing. Fall and Spring (3,3) Mr. Jenkins.

The course is intended for the student who has demonstrated some talent for creative writing. He is encouraged to develop his individual interests and creative capacities. Extensive practice in the several types of writing. Consent of instructor required for enrollment.

403. History of the English Language. (AS. IV) Fall (3) Mr. Ball.

A study of the history of the English language from Anglo-Saxon to the present. Some attention is given to American English and other variants.

404. Modern Grammar. (AS. IV) Fall or Spring (3) Mr. Southard.

An examination of structural grammar, transformational and other grammars.

405. Descriptive Linguistics. (S. IV) Fall (3) Mr. Southard.

A study of contemporary linguistic theory and methods of language analysis. Same

as Anthropology 430, Prerequisite: One linguistics course or consent of instructor.

406. Historical Linguistics. (S. IV) Spring (3) Mr. Southard.

A study of the principles, methods and major results of historical reconstruction, emphasizing Indo-European languages but with some attention to non-Indo-European as well. Same as Anthropology 440. Prerequisite: English 405 (Anthropology 430) or consent of the instructor.

408. Literary Criticism. (S. I. II or III) Fall or Spring (3) Mr. Neiman.

Major texts in the tradition of literary criticism from Aristotle to modern times, tracing the history of critical concerns in relation to the history of ideas.

409. Old English. (S. I, IV) Fall (3) Mr. Davidson.

An introduction to Old English, including elementary grammar and phonology and the reading of prose and short poems; collateral readings in the history and culture of the period.

- 410. Beowulf. (S. 1) Spring (3) Mr. Davidson. Prerequisite: English 409 or the permission of the instructor.
 - 413. Chaucer. (S. 1) Fall (3) Mr. Davidson.

A study of Chaucer's Canterbury Tales and Troilus and Criseyde.

421. Shakespeare. (S. I) Fall (3) Mr. Maccubbin.

An intensive study of selected histories and comedies.

422. Shakespeare. (S. I) Spring (3) Mr. Fehrenbach.

An intensive study of the major tragedies and the "problem" comedies.

426. Milton. (S. I) Spring (3) Mr. Savage.

An intensive study of Milton's poetry and prose, with due attention to the religious, political, and literary milieu in which Milton wrote.

429. English Renaissance Drama. (S. I) Fall (3) Mr. McCullev.

A study of drama in England, including conventious and currents of ideas, from the origins to the closing of the theatres in 1642, with emphasis on the works of Christopher Marlowe, Ben Jonson and John Webster.

435. Epic and Romance. (S. I, III) Fall (3) Mr. Conlee.

A study of the development of these major genres, with illustrative works drawn from ancient, Medieval and Renaissance, as well as English and Continental authors. Same as Comparative Literature 301.

436. The World Novel. (S. III) Spring (3) Mr. Meyers.

A study of selected works of fiction primarily by European and non-Western authors from the eighteenth century to the present. Same as Comparative Literature 302.

439. English Novel to 1832. (S. I) Fall (3) Mr. Smith.

Survey of the development of English prose fiction from its beginnings in the Elizabethan period through the novels of Austen.

440. English Novel, 1832-1900. (S. I) Spring (3) Mr. Ball.

Survey of the English novel from Dickens to the early twentieth century.

451. Modern Poetry. (S. I, II) Fall or Spring (3) Mrs. Freeman and Mr. Willis.

Modern English and American poetry and its development, with reading, inter-

pretation and discussion of the verse of Yeats, Pound, Eliot, Auden, Stevens, Thomas, and others.

452. Modern Fiction. (S. I, II) Fall or Spring (3) Mr. Jenkins, Miss Nettels and Mr. Smith.

Reading, analysis and discussion of the principal American and British fiction writers from 1890 to the present, chosen to illustrate contemporary tendencies in matter and technique.

454. Modern Drama. (S. I, II, III) Spring (3) Mr. McCulley.

A study of selected important plays of the English, Irish and American theatres since Ibsen.

460. Black Literature in America. (S. II) Fall (3) Miss Harris.

A study of selected works by the leading Black American writers, with emphasis upon their ethnic concerns and their contributions to the general development of American literary culture. Prerequisite: one course in American literature.

‡465. Special Topics in English. Fall or Spring (3) Staff.

Intensive exploration at an advanced level of a limited topic in English, American or international literature or in the relations between literature and other disciplines. Topics to be offered will be announced in the Spring of the year before that in which they are to be scheduled. Consent of the Department Chairman required for enrollment.

‡475. Senior Seminar in English. Fall and Spring (3) Staff.

A study in depth of a limited literary topic. Students write and present complex research papers for critical discussion. Open only to seniors. Non-concentrators may enroll upon consent of the Department Chairman.

‡480. Independent Study in English. Fall or Spring (3) Staff.

A tutorial course on a topic agreed upon by the student and instructor and approved in advance by a departmental committee. Open only to concentrators who have completed at least half of the concentration requirements.

HONORS STUDY

494. Junior Honors Seminar. Spring (3) Mr. Fehrenbach.

A study in depth of a limited literary topic, emphasizing student discussion and the preparation of critical papers. This course is restricted to concentrators planning to enroll in Senior Honors, and is a substitute for the required senior seminar.

‡495-496. Honors. Fall and Spring (3,3) Staff.

Students admitted to Honors Study in English will be enrolled in this course during both semesters of their senior year. The course comprises (a) supervised reading in the field of the student's major interest; (b) the preparation and presentation by May 1 of an Honors Essay based on the student's own research upon a topic approved in advance by the departmental Honors committee; and (c) satisfactory performance in a comprehensive oral examination in the field of the student's major interest.

GRADUATE PROGRAM

The department offers the degree of Master of Arts. For degree requirements, and a full description of graduate courses in English, write to the Director, Graduate Study in English for a Graduate Catalog.

Fine Arts

PROFESSORS NEWMAN (Chairman of the Department), ROSEBERG, and THORNE, ASSOCIATE PROFESSORS KORNWOLF and COLEMAN. ASSISTANT PROFESSORS CHAPPELL, and HELFRICH, INSTRUCTOR JACK, LECTURERS HOUGHLAND and WINTER.

There are two concentrations in the Department of Fine Arts, one for students primarily interested in the History of Art, the other for students primarily interested in Studio work. In each case the student is expected to complete F.A. 111-112 and F.A. 201-202. It is to the advantage of the student, particularly those concentrating in Art, to have completed these courses by the end of the sophomore year.

A wide variety of programs can be developed from the offerings of the department to suit individual needs of concentrators. Students interested in secondary school teaching of Art should elect the concentration in Art.

teaching of Art should elect the concentration in Art.

REQUIREMENTS FOR CONCENTRATION

Students concentrating in Fine Arts should choose between a concentration in History of Art or in Art.

Students concentrating in the History of Art are required to take F.A. 111, F.A. 112, F.A. 201, F.A. 202, F.A. 401 or 495-496 and fifteen additional credits in the History of Art.

Students concentrating in Art are required to take F.A. 111, F.A. 112, F.A. 201, F.A. 202, and eighteen additional studio credits at least six of which must be at the 400 level, and six additional credits in History of Art.

AREA AND SEQUENCE REQUIREMENTS

Area I requirements may be satisfied by Fine Arts 201-202, or by Fine Arts 111-112. Sequence requirements may be satisfied by six hours in Fine Arts 307-308, Fine Arts 403-404, Fine Arts 405-455, Fine Arts 406 or 453-454, Fine Arts 451-452, or any combination of Fine Arts 408-409-410-411, or by six hours of interrelated upper level History of Art courses approved by the Chairman of the Department.

DESCRIPTION OF COURSES

HISTORY OF ART COURSES

150. Freshman Seminar. Spring (3) Mr. Chappell.

An introduction to the History of Art.

201. Survey of History of Art. (A) Fall (3) Mr. Newman and Mr. Chappell.

The study of Ancient and Medieval Art. Illustrated lectures, readings, and papers.

202. Survey of the History of Art. (A) Spring (3) Mr. Newman, Mr. Chappell.

The study of Western Art from the Renaissance to the Present. Illustrated lectures, readings, and papers.

307. Modern Art. (S) Fall (3) Mr. Kornwolf.

History of Modern Architecture, Sculpture and Painting from circa 1780-1880.

308. Modern Art. (S) Spring (3) Mr. Kornwolf.

History of Modern Architecture, Sculpture and Painting from circa 1880 to World War H.

401. Problems in Twentieth Century Art. Fall (3) Mr. Kornwolf.

A study of contemporary problems in planning, architecture, painting, and sculpture. Required of all History of Art Majors.

402. Seminar in Twentieth Century Art. Spring (3) Mr. Kornwolf.

Special topics in Modern Art, with a major research paper.

403. Early Medieval Art. (S) Fall (3) Mr. Newman.

A study of certain aspects of Medieval Architecture, Sculpture, and Painting in Early Christian, Byzantine, Barbarian, Carolingian, and Romanesque Art.

404. Late Medieval Art. (S) Spring (3) Mr. Newman.

Primary attention is devoted to the development of High Gothic Art and to Late Medieval Painting.

405. Renaissance and Mannerist Architecture. (S) Fall (3) Mr. Kornwolf.

A study in depth of the major developments in European Architecture of the 15th and 16th centuries.

406. Renaissance Art in Italy. (S) Fall (3) Mr. Chappell.

A study in depth of the Painting of Italy from the 14th to the 16th century.

408. Primitive Art. (S) Spring (3) Mr. Roseberg.

Study of Art of Primitive People: Pre-Columbian American Art, Northwest American Indian Art, Melanesian and Polynesian Art, African Art, and the Art of Pre-Classical civilizations.

409. Oriental Art, India. (S) Fall (3) Mr. Roseberg.

A study of the art culture and religious background of India, including the influence of Indian culture on other Asian countries such as Cambodia, Thailand. Java, and Tibet. (Not offered 1974-75, to alternate with F.A. 411)

410. Oriental Art, China. (S) Spring (3) Mr. Roseberg.

A study of the Art and Architecture of China. (Not offered 1974-75, to alternate with F.A. 408)

411. Oriental Art, Japan. (S) Fall (3) Mr. Roseberg.

A study of the Art and Architecture of Japan.

- **451.** Colonial American Architecture. (S) Fall (3) Mr. Thorne. Prerequisites: 201, 202, or 405.
- 452. Colonial American Painting. (S) Spring (3) Mr. Thorne. Prerequisite: 202, 406, or 454.
- **453.** Northern Renaissance Art. (S) Fall (3) Mr. Chappell. Prerequisite: 201, 202, or 2 upper level History of Art courses.
- **454. Baroque Painting.** (S) Spring (3) Mr. Chappell. Prerequisite: 201, 202, or 2 upper level History of Art courses.
 - 455. Baroque Architecture. (S) Spring (3) Mr. Kornwolf.

A study in depth of the Baroque movement in architecture and the reactions to it in the 17th and 18th centuries.

460. Research Problems in the History of Art. (3) Staff.

Individual study on selected problems. Prerequisite: 201, 202, and four additional courses in the History of Art.

495-496. Senior Honors in Fine Arts. Fall and Spring (3, 3) Staff.

STUDIO ART COURSES

111. Basic Design I. (A) Fall and Spring (3) Staff.

Fundamentals of Two Dimensional Design. A series of lectures and studio problems on the elements of two dimensional design, including the illusion of three dimensions on the picture plane, line, shape, texture and color. Six Studio Hours.

112. Basic Design II. (A) Fall and Spring (3) Staff.

Fundamentals of Three Dimensional Design. A series of lectures and studio problems dealing with the elements of three dimensional design, including compositions in relief and in the round. Six Studio Hours.

311. Drawing. (3) Mr. Coleman

A semester course in the problems of drawing. Prerequisite: 111 or consent of the instructor. Six Studio Hours.

312. Watercolor. (3) Mr. Coleman.

A course exploring the varied possibilities of watercolor as expressive medium. Six Studio Hours.

313. Architectural Design I. Fall (3) Mr. Houghland.

The Discovery of Architecture through Design, with emphasis on basic design vocabulary: Drafting, Perspective, Shades and Shadows, Scale, and Proportion. Prerequisite: 111, 112, or consent of the instructor. Six Studio Hours.

314. Architectural Design II. Spring (3) Mr. Houghland.

The investigation of the role of architect with specific design problems, and the development of presentation techniques. *Prerequisite: 313. Six Studio Hours.*

315. Painting I. Foll (3) Mr. Thorne.

The production of original work in oil, acrylic, and mixed media. Prerequisite: 111, 112 or consent of the instructor. Six Studio Hours.

316. Painting II. Spring (3) Mr. Thorne.

A continuation of 315. Prerequisite: 315 or consent of the instructor. Six Studio Hours.

317. Sculpture I. Fall (3) Mr. Roseberg.

A course in the use of the sculptor's tools and materials in the production of original work, including modelling in clay, plaster casting, direct building in plaster. Five specific sculpture problems are to be completed during the course or during both semesters. Prerequisite: 111, 112 or consent of the instructor. Six Studio Hours.

318. Sculpture II. Spring (3) Mr. Roseberg.

Continuation of 317. Development of original designs from preliminary sketch to completed work, Prerequisite: 317 or consent of the instructor. Six Studio Hours.

321. Ceramics I. Fall (3) Ms. Jack.

Studio problems in ceramic art, including hand building, wheel work, glazes, and kiln firing. Prerequisite: 111, 112 or consent of the instructor. Six Studio Hours.

322. Ceramics II. Spring (3) Ms. Jack.

Original work in clay, the making of glazes, various kiln firing procedures. Prerequisite: 321 or consent of the instructor. Six Studio Hours.

FINE ARTS

323. Graphics I. Fall (3) Mr. Helfrich.

After the student experiences relief, intaglio and serigraph printing he will choose one of the methods for extended exploration. *Prerequisite:* 111, 112 or consent of the instructor. Six Studio Hours.

324. Graphics II. Spring (3) Mr. Helfrich.

Within one of the following areas, relief, intaglio, or serigraph the student will explore the multiple potential of an area as a means of original visual expression. *Prerequisite: 323 or consent of the instructor. Six Studio Hours.*

441. Advanced Studio I. (3) Staff.

Advanced work in all media. May be repeated. Prerequisite: Two 300 courses in one media. Six Studio Hours.

442. Advanced Studio II. (3) Staff.

Advanced work in all media. Prerequisite: 441 or consent of the instructor. May be repeated. Six Studio Hours.

All work produced by the students of the studio classes remains the property of the College of William and May until released by the appropriate faculty member in charge. The College will not be responsible for theft or damage to such works.

Geology

PROFESSORS GOODWIN (Chairman of the Department), and BICK. ASSOCIATE PROFESSORS CLEMENT and JOHNSON. ASSISTANT PROFESSOR THOMAS.

The program of the Department of Geology is designed to provide each concentrator with a strong, broad background in geology and yet is sufficiently flexible to allow a student freedom to follow his or her own interests. This is accomplished by requiring every concentrator to take a core of six courses and then providing an opportunity for each student to choose the remaining three courses which comprise his concentration. Ample opportunity is available for independent student research and the department considers such research to be an integral part of its curriculum.

The geologic setting of Williamsburg enhances the program in geology and offers a wide variety of areas for field studies. Situated on the Coastal Plain with its excellent exposures of sediments and fossils, the College is only fifty miles from the fall zone beyond which occur igneous and metamorphic rocks of the Piedmont. The Blue Ridge and Valley and Ridge areas are within a three hour drive. Thus the field study area includes all major rock types and representatives of most geologic periods from Precambrian rocks to modern sediments.

REQUIREMENTS FOR CONCENTRATION

A concentration in Geology requires a minimum of thirty three semester hours of courses in Geology beyond Geology 101, 102. A concentrator's program consists of two parts:

- 1) A core of six courses totaling twenty four hours which must be taken by all concentrators. These six courses are: Geology 201, 202, 301, 302, 401 and 402.
- 2) Three additional courses totaling nine hours which may be selected from among the following courses: Geology 204, 303, 304, 306, 403, 404, 405, 406 and 407.

Geology courses which will not be counted toward the concentration are Geology 101, 102, 203, 305 and 308.

Both the AB and BS degrees will be granted. In order to qualify for the BS, in addition to the above program a student must satisfy the general catalog requirements for the BS.

It is strongly recommended that a student who wishes to pursue geology on the professional level take the following courses: Geology 403, Physics 101, Chemistry 103, 102, and Mathematics 111, 112. Graduate schools also usually require a reading knowledge of French, German or Russian.

Geology 101-102 or permission of instructor is required for all 300 and 400 level Geology courses.

DESCRIPTION OF COURSES

101-102. Earth Processes. (A) Fall and Spring (4, 4) Mr. Goodwin, Mr. Thomas and Staff.

Processes of the hydrologic and rock cycles, and their influence on the composition, structure, and evolution of the earth. Voluntary field trips. Three Class Hours, One Pre-Laboratory Hour, Two Laboratory Hours.

150. Freshman Colloquium. Fall or Spring (3) Mr. Johnson.

Various special topics in Geology. This course does not count toward concentration, area, or sequence requirements. Weekend field trip required.

201. Mineralogy. (S) Fall (4) Mr. Clement.

An introduction to crystal chemistry and crystallography. Identification of common

minerals by their physical properties. Introduction to X-ray diffraction and petrographic techniques. Three Class Hours, Three Laboratory Hours.

202. Igneous and Metamorphic Petrology. (S) Spring (4) Mr. Clement. Prerequisite: Geology 201.

Mineral and rock genesis in the igneous and metamorphic environments. A study of hand specimens and thin sections, structures, textures, and aerial distribution. Field Trips. Three Class Hours, Three Laboratory Hours.

203. Physical Geography. Fall (3) Mr. Bick.

An introduction to physical geography. Topics include earth-sun relationships, energy balance, atmospheric and oceanic circulation, weather elements, climates, and geomorphic processes.

204. Contemporary Geology: A Global Approach. (S) Spring (3) Mr. Bick. Prerequisite: Geology 101, 102.

Major geological and geophysical aspects of the contemporary earth, theoretical synthesis, and implications for the origin and configuration of continents and ocean basins. Topics covered are the significant morphological features of the earth; gravity anomalies, magnetism and polar wandering, seismicity, and heat flow; continental drift; sea floor spreading; and plate tectonics.

301. Sedimentary Petrology. (S) Spring (4) Mr. Thomas.

The petrology of sedimentary rocks including the formation, transport, deposition and post-depositional aspects of sediments. Interpretation of sedimentary rocks utilizing hand specimens, field relationships, thin-sections and quantitative laboratory techniques will be stressed. Field Trips. Three Class Hours, Three Laboratory Hours.

302. Paleontology. (S) Fall (4) Mr. Johnson.

The taxonomy of fossil organisms and the role of fossils in the study of organic evolution and the time relations of rock sequences. The laboratory stresses invertebrate morphology and quantitative measurement of local marine fossils. Field Trips. Three Class Hours, Three Laboratory Hours.

303. Geology of the United States. (S) Fall (3) Mr. Bick.

Descriptive treatment of the major aspects of the geology of the physiographic regions of the conterminous United States. Major emphasis is on the stratigraphy, structure, and development of each region. Two weekends will be devoted to field trips. (Not offered in 1974-75).

304. Geomorphology. (S) Fall (3) Mr. Thomas.

A descriptive and quantitative study of landform evolution and modification with respect to climate, drainage basin analysis, soils, and weathering. Attention will be paid to the development of current ideas and interpretation of aerial photographs and maps. (Not offered in 1974-75).

305. Environmental Geology. (S) Spring (3) Mr. Johnson.

An introduction to the causes and extent of air and water pollution, and to methods of preventing, reducing, or eliminating problems relating to ground and surface water, air, and solid waste.

306. Marine Geology. (S) Fall (3) Mr. Thomas.

An introduction to the history and development of concepts relating to the physical processes acting in the marine environment today. The impact of man will be emphasized. Individual concepts are to be integrated into the broader ideas of oceanic circulation patterns and plate tectonics.

308. Economic Geology. (S) Fall (3) Mr. Clement.

The origin, distribution, production, utilization and economics of metallic and non-metallic mineral resources.

401. Structural Geology. (S) Fall (4) Mr. Goodwin.

Theoretical, experimental, and field study of deforming forces and their effects on earth materials. Field Trips, Three Class Hours, Three Laboratory Hours.

402. Historical Geology. (S) Spring (4) Mr. Bick.

The principles of geologic historical reconstruction. Emphasis is on stratigraphic principles and synthesis with examples from the United States. Three Class Hours, Three Laboratory Hours.

403. Quantitative Geologic Models. (S) Fall (3) Mr. Bick.

The probabilistic basis of geologic processes and its application to geologic hypotheses through quantitative testing of conceptual models.

404. Paleoecology. (S) Spring (3) Mr. Johnson.

The study of the relationship between fossil organisms and the interpretation of ancient environments from the fossil record. Field Trips. Two Class Hours, Three Laboratory Hours. (Not offered in 1974-75).

405. Petrography. (S) Spring (3) Mr. Clement. Prerequisite: Geology 202.

An introduction to the theory and use of the polarizing microscope. Two Class Hours, Three Laboratory Hours.

406. Independent Research. Fall or Spring (3) Staff.

A course for seniors affording an opportunity for individual research under the supervision of a faculty member.

407. Senior Seminar. Spring (3) Mr. Goodwin.

Discussions and readings on contemporary problems in geology. When possible, problems will be studied in the context of the Appalachian Mountain system.

495-496. Honors. Fall and Spring (3, 3) Staff.

Students admitted to Honors Study in Geology will be enrolled in this course during both semesters of their senior year. The requirements include a program of research in geology accompanied by readings from the original literature, the satisfactory completion of a comprehensive examination following Geology 495 in the subject area of the research, and the preparation and presentation of an Honors Essay based on the student's reading and research. Hours to be arranged.

GEOGRAPHY

Those interested in geography can prepare themselves for further study in the field by selecting suitable courses from among the following while concentrating in a discipline allied to geography:

Physical Geography

Geology 203—Physical Geography Geology 305—Environmental Geology

Economic Geography

Anthropology 304—Primitive Economic Systems Geology 308—Economic Geology

GEOLOGY

Human Geography

Anthropology 202—Cultural Anthropology Anthropology 314—Indians of North America Anthropology 417-2—Tropical Ecology Sociology 349—Human Geography

Regional Geography

Anthropology 323—Peoples and Cultures of South America Anthropology 330—Peoples and Cultures of the Caribbean Anthropology 331—Peoples and Cultures of Africa Anthropology 340—Peoples and Cultures of Insular Southeast Asia Anthropology 342—Peoples and Cultures of Mainland Southeast Asia Anthropology 344—Peoples and Cultures of Oceania



Government

PROFESSORS HAMILTON (Chairman of Department), EDWARDS, KIM, and MORROW. AS-SOCIATE PROFESSORS BAXTER, GRAYSON, SMITH and WARD. ASSISTANT PROFES-SORS DAMON, DE WEYDENTHAL, MIRL, and RIGELMAN. ACTING ASSISTANT PRO-FESSOR GRISER.

THE GOVERNMENT PROGRAM

The Government concentration consists of forty-two [42] credits of coherently related work selected by the student in consultation with his departmental advisor. Thirty-three (33) credits must be taken in the Department of Government. Each concentrator must take Government 201 and 202 and do a minimum of three (3) hours or course work in each Core Area of the concentration. The four Core Areas are [I] Political Philosophy, (II) Comparative Government and Politics, (III) International Politics, and (IV) American Government, Politics, and Administration. At least three (3) hours of course work must be done at the 400 level. Concentrators are admitted to Honors in Government with the permission of the Department.

Nine (9) credits in related courses are required. With the exception of History 201, 202 all related work must be at the 300 or 400 level and have the approval of one's advisor. Note: Pass/Fail grades cannot be used for related courses. It is recommended that concentrators carry their foreign language study beyond the minimum require-

ment for distribution.

DESCRIPTION OF COURSES

150. Freshman Seminar. Fall and Spring (3) Staff.

Topics to be announced.

Government 201, 202. Introduction to Government and Politics. (A) Fall and Spring [3, 3] Staff.

The first semester is a general introduction to American politics. The second semester is a consideration of such perennial questions of politics as freedom, authority, power, community, and leadership.

307. Introduction to Research Methods. Spring or Foll (3) Staff.

An introduction to the methods of empirical political analysis. Topics will include the philosophy of science, research design, concept formation, measurement, hypothesis testing, data analysis, and the logic of causal interpretation.

Core Area I: Political Philosophy

303, 304. Survey of Political Philosophy. (A,S) Fall and Spring (3, 3) Mr. Rigelman and Mr. Smith.

The course is developed around two themes, the classical tradition and the modern tradition in political philosophy. In the first semester the political works of Plato and Aristotle are taken as the standards of the classical tradition. Selected works of medieval Christian writers are also included. Machiavelli and Hobbes define the modern tradition as this is taken up in the second semester. The works of Locke, Rousseau, and Burke complete the course.

305. Contemporary Political Philosophy. (A,S) Fall or Spring (3) Mr. Rigelman and Mr. Smith.

An examination of various approaches to Political Philosophy from the late nine-teenth century to the present.

On leave of absence, 1974-75.

GOVERNMENT

401. American Political Thought. (S) Fall (3) Mr. Smith.

Basic problems of political theory will be viewed from the perspective of the American experience.

405. Studies in Political Philosophy: Themes and Problems. (S) Fall or Spring [3] Mr. Rigelman and Mr. Smith.

This course will examine a particular theme or problem such as authority, community, freedom, justice, or utopia.

406. Studies in Political Philosophy: Theorists and Movements. (S) Fall or Spring (3) Mr. Rigelman and Mr. Smith.

This course will examine the work and significance of a particular great political theorist, group of theorists, or a major movement such as Marxism, Utilitarian Reformism, Conservatism.

412. Empirical Political Theory. (S) Spring (3) Mr. Baxter.

A survey of several different approaches to the development of political theory through empirical research. Structured research problems will be used to enable the student to develop facility with the logic and methods of empirical research and to illustrate the relationship of such research to formal theories. Individual research projects will be required.

Core Area II: Comparative Government and Politics

311, 312. Comparative Government. (A,S) Foll and Spring (3, 3) Miss Hamilton and Mr. Baxter.

A comparative study of institutions and processes of government. Historical, cultural, social and economic factors will be given considerable attention. In the first semester, countries of western Europe will be considered with emphasis on England and France. In the second semester, selected governments of nonwestern nations will be analyzed.

334. Soviet Political System. (A,S) Fall (3) Mr. DeWeydenthal.

A study of the contemporary political system of the Soviet Union with emphasis on potentially dynamic aspects of its socio-economic development as contrasted with the stability of historically determined structural patterns of political control. Attention will be given to the international position of the Soviet Union and a comparison with selected Western political systems will be attempted.

335. Comparative Communist Systems. (A,S) Spring (3) Mr. DeWeydenthal.

A comparative analysis of political and ideological problems confronting established communist systems in contemporary societies. Special attention will be paid to the growing conflicts between different structures of authority, the role of ideology in a changing environment, and the appearance of dissent ranging from revolts of students and intellectuals to doctrinaire rejections of reforms.

336. Governments and Politics of China and Japan. (A,S) Foll (3) Mr. Kim.

During the first part of the semester, Communist China will be emphasized. After a survey of the history of Chinese communism, China's political system will be considered with attention given to the role of the leadership, the party, the state, and the military. During the second part of the semester, Japan will be emphasized. Contemporary Japan will be viewed in terms of its political culture with attention given to interest groups, political parties and the process of parliamentary democracy.

337. Politics in Africa. (A,S) Fall (3) Mr. Noisin.1

A study of selected nations of Africa south of the Sahara. Emphasis will be placed on phenomena such as the rise of nationalism, the development of African party and governmental systems, and the role of Africa in international politics.

338. Latin American Politics and Government. (A,S) Spring (3) Mr. Grayson.

A comparative analysis of the types of government of selected Latin American nations. Appropriate consideration will be given to current conditions and to such problems of general political development as recruitment and socialization, communication and articulation, interest aggregation and decision-making.

410. British Government and Politics. (S) Fall (3) Mr. Ward. Prerequisite: Government 311 or consent of instructor.

A study of political institutions and political behavior in the United Kingdom. Special attention is given comparisons with the parliamentary democracies of the Commonwealth and the Republic of Ireland.

411. French Government and Politics. (S) Spring (3) Miss Hamilton. Prerequisite: Government 311 or consent of Instructor.

A study of political institutions and political behavior in post-war France. Emphasis will be placed on problems related to political and economic modernization.

416. Revolution and Politics. (S) Fall or Spring (3) Mr. Grayson.

Recent social science theories dealing with motivation of mass leaders, economic and social conditions underlying mass behavior, and use of propaganda, violence and symbols to recruit followers. The Russian, Mexican, Bolivian and Cuban revolutions will be studied along with Fascism, Peronism, and contemporary urban terrorist movements.

431, 432. Comparative Political Systems. (S) Fall and Spring (3, 3) Mr. Baxter. Prerequisite: Government 311, 312 or consent of the instructor.

A comparative approach to the study of politics. First Semester: Scope and methods of comparative political analysis; individual students prepare and present research proposals. Second Semester: Students execute research proposals, present intermediate and final reports.

Core Area III: International Politics

323, 324. International Relations. (A.S) Fall and Spring (3, 3) Mr. Ward and Mr. Kim.

The theory and practice of International Politics. During the first semester the course will consider the international system of states and the bases of national power. The second semester will be a study of American foreign policy with an emphasis on the process of policy formulation. Selected foreign policy problems will be considered.

325. International Organization. (A,S) Spring (3) Mr. Kim.

A study of the development of the structures and procedures of international organization, and of the methods for pacific settlement of international disputes. Special attention will be given the League of Nations and the United Nations and the gains and failures of these organizations.

¹Assistant Professor of Anthropology.

327. Africa in International Relations. (A,S) Spring (3) Mr. Noisin.

A survey of the factors influencing the foreign policies of African states. Topics will include the non-alignment concept, inter-state conflict and cooperation, Pan-Africanism, and regional integration.

436. Contemporary International Relations of East Asia. (S) Spring or Fall (3) Mr. Kim.

After a general survey of United States' relations with East Asia, consideration will be given to such topics as post-war US-Soviet rivalry in East Asia, the role of the United States in the democratization of Japan and Korea, the emergence of Communist China and its impact on Asia, the role played by Japan, and the problems of a divided Korea.

Core Area IV: American Government, Politics, and Administration

306. Political Parties. (A,S) Spring (3) Mr. Damon.

An analysis of the nature, sources, and organization of political power, and of the factors governing its conquest and surrender. The course deals chiefly with American politics but makes comparisons with politics of other countries. Special attention is given the problem of analyzing and reporting political situations.

351. Introduction to Public Administration. (A,S) Fall (3) Mr. Morrow.

Policy-making and administration in government agencies. This course analyzes comparative administrative systems in the United States with emphasis on decision-making structures, constituency groups, and policy outputs.

353. The Politics of States and Localities. (A.S.) Spring (3) Mr. Miri.

An examination of the institutions and processes of government and politics in American states and localities. Relationships among national, state, and local governments will be analyzed in the context of a federal system.

371, 372. American Politics. (A,S) Fall and Spring (3,3) Mr. Damon, Mr. Edwards.

The political process at the national level, including such topics as organization and recruitment, governmental decision-making, relationships among departments, and political parties and leadership. The first semester is concerned with the executive and legislative branches; the Supreme Court is considered in the second semester.

373. American Civil Liberties. (A,S) Fall or Spring (3) Staff.

This course is an intensive study of the rights of Americans as guaranteed by the Constitution. The changing character of civil liberties problems in the United States will be stressed with attention given to the legal, historical and political context of the cases studied. Class discussion and reports will be emphasized.

454. The Politics of Metropolitan Areas. (S) Foll (3) Mr. Miri. Prerequisite: Government 351, or 353, or consent of Instructor.

An examination of the American political system's capacity to confront and solve problems of the nation's urban areas. Historical, economic, and sociological factors affecting the political process in "metro areas" will be considered.

456. The Development of Public Policy. (S) Fall or Spring (3) Mr. Morrow.

A multi-dimensional examination of the salient factors which interact in the development of public policy in the United States. Emphasis is placed on how policy solutions to public problems are defined, represented, legitimized, administered and evaluated.

GOVERNMENT

465. Public Opinion and Voting Behavior. (S) Fall or Spring (3) Staff. Prerequisite: Government 371 or consent of Instructor.

The relationship between opinions and political policymaking, including the characteristics of political opinions, patterns of voting behavior, and the importance of leadership.

491. Topics in Government. (S) Foll or Spring (3) Staff.

Selected topics in Government. The topic to be considered will be announced prior to the beginning of the semester.

494. Independent Study. (S) Fall or Spring (3) Staff.

A program of independent study, involving extensive reading and the writing of an essay, arranged by the student in consultation with the Department. This course cannot be used to satisfy the 400-level requirement for concentrators in Government.

HONORS STUDY

495, 496. Senior Honors. (S) Foll and Spring (3, 3) Staff.

Students admitted to Senior Honors in Government will be responsible for (a) reading and discussion of selected materials; (b) satisfactory completion by May 1 of an original scholarly essay; (c) satisfactory performance in a comprehensive examination in the field of the student's major interest.

GRADUATE PROGRAM

The department offers the degree of Master of Arts. For degree requirements, and a full description of graduate courses in government, write to the department chairman for a Graduate Catalog.

History

PROFESSORS L. JOHNSON (Chairman of the Department), BEYER, BROWN, COYNER, ES-LER, FREEMAN, JACOBS. KENYON (HARRISON CHAIR, 1974-75), MCGIFFERT, SELBY, SHERMAN, and TATE. ASSOCIATE PROFESSORS CRAPOL, FUNIGIELLO. MCARTHUR, MCGORD, SHEPPARD, and STRONG. ASSISTANT PROFESSORS CANNING, EWELL, KEL-KEY, MENARD, THOMPSON, and WALKER. LECTURERS CARSON, CULLEN, CURTIS, FIERING, GILL, H. JOHNSON, and RILEY.

AREA AND SEQUENCE REQUIREMENTS

The normal area-sequence combination is History 101-102 and History 201-202.

Among other satisfactory combinations are: History 201-202 and two upper level American history courses, History 101-102 and two upper level European history courses (including Russian and English history), History 309-310 and two upper level Latin American history courses, and History 205-206 and two upper level Asian history courses.

Permission of the instructor is required for freshmen to enroll in courses numbered 200 and above, and for sophomores to enroll in courses numbered 400 and above.

REQUIREMENTS FOR CONCENTRATION

Concentration in History requires 30 semester credits in history, including History 101, 102, 201 and 202, except that one or more semesters of the preceding courses may be waived by the department chairman upon demonstrated proficiency in European or American history. Students are advised not to limit their junior and senior year courses to those dealing with the history of any one nation. Foreign languages are recommended for students planning to concentrate in history.

DESCRIPTION OF COURSES

European History

101, 102. History of Europe. (AS) Fall and Spring (3, 3) Staff.

Using European civilization as the point of focus, the course provides a general introduction to the study of history through a discussion of historical methods and problems. First semester centers on the period up to 1715; the second, from 1715 to the present.

150. Freshman Colloquium. Fall and Spring (3, 3) Staff.

Topics to be announced.

301, 302. The Ancient World. Fall and Spring (3, 3) Mr. Jones.

Ancient Civilization from prehistoric times to the downfall of the Roman Empire. The first semester deals with the ancient Orient and Greece; the second semester with Rome. (Same as Classical civilization 311, 312. The course cannot be counted for concentration in history.)

¹ Visiting Professor, 1974-75

On leave second semester, 1974-75

³ Fellow, Institute of Early American History and Culture

⁴ Research Department, Colonial Williamsburg Foundation

John Marshall Papers

^h On leave, 1974-75

⁷ Chancellor Professor of Classical Studies.

311, 312. Europe in the Middle Ages. (AS) Fall and Spring (3, 3) Mr. Freeman.

The origins and nature of Medieval civilization. First semester; the newly forming West and the Roman, German, Byzantine, and Arab influences which worked to create it. Second semester: the aggressive expansion of government, the church, business, and city life along with the counter-development of restrictive forces that limited their free expansion. (Not offered 1973-74.)

315, 316. The Age of Ahsolutism and Revolution in Europe, 1648-1871. (AS) Fall and Spring (3,3) Mr. Sheppard.

An intensive survey of Europe in transition: Absolutism, Enlightenment, Democratic Revolution and the emergence of the modern state. (Not offered 1974-75).

317, 318. Recent Europe, 1871 to the Present. (AS) Fall and Spring (3, 3) Mr. Strong.

First semester: the background to World War I, the course of the war and the collapse of the Central and East European monarchies. Second semester: 1918 to the present, with emphasis on the failure of the Versailles settlement, the rise of Totalitarianism and the Second World War. The course concludes with a discussion of contempory Europe. (318 not offered 1974–75.)

319, 320. History of England. (AS) Fall and Spring (3, 3) Mr. McCord.

The political social, religious and economic history of England. First semester: Roman occupation through the reign of Elizabeth I; Second semester: 1603 to the present.

321, 322. The History of Russia. (AS) Fall and Spring (3, 3) Mr. McArthur.

The political, economic, social and intellectual development of Russia. First semester to 1855. Second semester 1855 to the present. (Not offered 1974–75)

323, 324. Intellectual History of Modern Europe. (AS) Fall and Spring (3,3) Mr. Esler.

Cultural and intellectual development of the western world from the end of the middle ages to the present. First semester: from the renaissance to the enlightenment. Second semester: the nineteenth and twentieth centuries.

409, 410. England Under the Tudors and Stuarts. (S) Fall and Spring (3,3) Mr. Jacobs.

The first semester, 1485–1603; the second semester, 1603–1714.

411. Constitutional History of Medieval England. (S) Fall (3) Mr. Freeman.

A study of English constitutional development from the Norman Conquest to the beginning of the Tudor monarchy. Special emphasis will be placed on the royal courts and the common law, restrictions on the king, the effects of war on the constitution, and the place of parliament. (Not offered 1974–75.)

413, 414. The Making of Modern England. (S) Fall and Spring (3,3) Mr. McCord.

An examination of the political, economic, social, and intellectual changes which explain England's transition from an aristocratic to a democratic society. The course divides in the mid-Victorian period. (Not offered 1974–75.)

433, 434. Modern Germany. (S) Fall and Spring (3,3) Mr. Strong.

First semester: origins and establishment of the modern German state to the collapse of the Second Reich. Second semester: establishment and course of Hitler's Third Reich. (Not offered 1974-75.)

HISTORY

437, 438. History of France, 1715 to the Present. (S) Fall and Spring (3,3) Mr. Sheppard.

First semester, 1715–1815. Intensive examination of a pre-industrial society with special emphasis on social, economic and intellectual problems during the *oncient regime*, Revolution and Napoleon. Second semester, 1815–present. Special attention to social and economic problems as well as to the politics of twentieth-century France.

471. The Russian Intelligentsia: Selected Problems. (S) Spring (3) Mr. McArthur. Prerequisite: History of Russio, or consent of instructor.

Selected aspects of the nature and role of the Russian intelligentsia. Considerable use will be made of primary materials, including literature. A knowledge of the Russian language is not required, but will be utilized when available.

472. The Russian Revolution. (S) Foll (3) Mr. McArthur. Prerequisite: History of Russia, or consent of instructor.

The origins, course, and impact of the Bolshevik Revolution. Considerable use will be made of primary materials. A knowledge of the Russian language is not required, but will be utilized when available.

474. Medieval England. (S) Spring (3) Mr. Freeman.

Special emphasis will be placed on the period from the Norman Conquest through the fourteenth century, when the English were aggressive abroad and creative at home. The social, economic, political, and military explanations for this expansive period will be examined. (Not offered 1974–75.)

481. History of Physical Science: its origins, Sixth Century B.C. through the Renaissance. Fall (3) Mr. McKnight.

A study of the Greek and Hellenistic endeavors to explain observed physical phenomena, of Arab science in the Middle Ages, of the revival of academic science during the rise of the European Universities, and Renaissance beginnings of modern physics and astronomy. (Same as Physics 417). (Not offered 1974–75. This course cannot be counted for concentration in History.)

482. History of Physical Science: The Classical Period, 1687–1900. Spring (3) Mr. McKnight.

A study of the development of the physical sciences after the publication of Newton's Principia. Emphasis will be placed on influences acting on and within the scientific community, on the impact of science on the institutions of society, and on the interrelations between the development of science and that of mathematics and philosophy. (Same as Physics 418). (Not offered 1974–75. This course cannot be counted for concentration in History.)

AMERICAN HISTORY

201, 202. American History. (AS) Foll and Spring (3,3) Staff.

The development of the United States. Special emphasis is placed on the period since 1776. The course divides at the year 1877.

201H, 202H. American History. (Honors course.) (AS) Fall and Spring (3.3) Ms. Walker.

Designed to give the student insight into problems of interpretation and methodology, and to acquaint him with the literature of American history, Admission by consent of the instructor.

309, 310. Survey of Latin American History. (AS) Fall and Spring (3,3) Ms. Ewell.

The development of Latin America from Pre-Columbian times to the present. Emphasis is on the inter-action of European, Indian, and African elements in colonial society, the growth of national consciousness, and the related phenomena of political instability and economic underdevelopment.

‡401, 402. Topics in Modern History. Fall and Spring (3,3) Staff.

A tutorial and seminar at the junior-senior level designed for outstanding history concentrators. Recommended for students intending to pursue graduate study. Admission by consent of the chairman of the department.

*403. Colonial and Revolutionary Virginia. (S) Spring (3) Mr. Tate.

A specialized study of the founding and development of the Virginia colony with special emphasis on the evolution of its social and political structure.

405, 406. Early American History. (S) Fall and Spring (3,3) Mr. Selby.

Special stress is laid on the nature of the new society in British North America and the development of ideas and institutions which, in the course of the struggle for independence and the formation of the union of states, emerged as a distinctive national culture. The course divides at the year 1763 and concludes with the end of the War of 1812.

421, 422. The United States, 1815-1877. (S) Fall and Spring (3,3) Mr. L. Johnson.

The origins, development, and outcome of the struggle between the North and South.

423, 424. The United States 1877 to 1945. (S) Fall and Spring (3,3) Mr. Sherman.

The emergence of modern America. Primary emphasis is on domestic developments. Major topics include: the rise of industry, political trends, economic and social reform movements, and the role of ethnic and racial minorities. The course divides around 1920. (424 offered in Fall; 423 not offered 1974-75.)

425. The United States Since 1945. (S) Spring (3) Mr. Sherman.

The primary emphasis in this course is on domestic developments since World War II, including political and economic trends, the civil rights movement, and other recent social reform activities.

429, 430. American Constitutional History. (S) Fall and Spring (3,3) Mr. Cullen, Mr. H. Johnson.

First semester: evolution of the federal constitution from national supremacy and dual sovereignty, with special emphasis upon the constitutional significance of the post-Civil War amendments. Second semester: federal constitutional development in the fields of business regulation, federal-state relations, civil liberties and civil rights. The course divides in 1877. (Not offered 1974-75.)

441. The Caribbean. (S) Fall (3) Mr. Beyer.

Deals particularly with the Spanish, English, and French West Indies. A sequential treatment of the eras of exploration and colonization; plantation prosperity and international rivalry; post emancipation problems; and incipient nationalism.

442. Brazil. (S) Spring (3) Mr. Beyer.

Antecedents of modern Brazil, 1500-present, with accent on economic, social, and cultural factors as well as on political growth in the Portuguese colony, the Empire, and the Republic.

443, 444. History of American Foreign Policy. (S) Foll and Spring (3,3) Mr. Crapol.

The formulation and development of American foreign policy from 1775 to the present. The emphasis is on the domestic and international forces which have shaped American foreign policy. Special attention is given to the problems involved in the planning and execution of foreign policy. First semester: 1775 to 1899. Second semester: 1899 to 1945. [443 offered in Spring; 443 not offered 1974–75.]

445. History of American Foreign Policy in the Cold War Era. (S) Fall or Spring (3) Mr. Crapol.

An intensive analysis of the origins of the cold war, the policy of containment, global conflict since 1945, the strategy of foreign aid, and the ideological contest in the underdeveloped world.

453, 454. American Intellectual History. (S) Fall and Spring (3,3) Mr. Thompson.

A study of American thought and culture from colonial times to the present. The semesters break at the Civil War.

459. Problems in Modern History. (S) *Fall* (3) Ms. Kenyon, James Pinckney Harrison Professor of History, 1974–75.

Topic: The Anglo-American Background of the Political Thought of the American Revolution.

461, 462. American Social History. (S) Fall and Spring (3,3) Mr. Brown.

History 461 focuses upon colonial Williamsburg as a resource for the study of early American social history. History 462 emphasizes the social history of the nineteenth and twentieth centuries. (461 offered in spring; 462 not offered 1974–75.)

463. The Old South. (S) Fall (3) Mr. Coyner.

The American South from its colonial origins to secession, including, as major topics, the structure of society, the economy, slavery, the growth of Southern sectionalism, and the Southern mind.

464. The Emergence of the New South Since 1865. (S) Spring (3) Ms. Walker.

A survey of the political, economic, and social developments in the South since the Civil War. The course will examine Reconstruction, the Bourbon regimes, Populism, racism, progressivism, the depression, the New Deal, and post World War II conditions.

466. The Negro in the United States Since 1861. (S) Spring (3) Ms. Walker.

An examination of the role of the black man in American society from the Civil War to the present. The course will consider political, economic, and social developments within the black community, as well as problems of black-white relations. (Not offered 1974-75.)

476. The Rise of Urban America. (S) Fall (3) Mr. Funigiello.

The American city from the colonial period to the present; political and economic institutions, social change, technological innovations, planning theories, and the reactions of sensitive observers to the process of urbanization as expressed in imaginative literature and scholarly studies.

477. History of Mexico. (S) Spring (3) Ms. Ewell.

Development of the Mexican nation from the Spanish conquest to the present. Sequential treatment of the interaction of Spanish and Indian cultures, expansion of the frontier, independence, 19th century liberalism and caudillism, the Mexican Revolution of 1910 and its institutionalization.

479. Social and Intellectual History of Latin America. (S) Fall (3) Ms. Ewell.

Survey of Latin American society and thought from the sixteenth to the twentieth century. The study of English translations of primary sources (novels, histories, essays, poetry, journals) will illustrate the relationship between society and the intellectual in Latin American history. (Not offered 1974–75.)

ASIAN HISTORY

205, 206. Survey of East Asian Civilization. (AS) Fall and Spring (3,3) Mr. Canning.

A general political and cultural history of China, Japan, Korea and Vietnam from ancient times to the present.

483, 484. Modern History of China and Japan. (S) Fall and Spring (3,3) Mr. Canning.

An examination of major topics in modern Chinese and Japanese history through primary sources (in translation), literature and current historical writing. First semester: Japan; second semester: China.

HONORS STUDY

495, 496. Honors. Fall and Spring (3,3) Staff.

Students admitted to Honors Study in History will be enrolled in this course during both semesters of their senior year. Each candidate will be responsible for (a) reading and discussion of a selected list of books in some specific area of historical literature; (b) a scholarly essay by May 1; (c) a comprehensive oral examination. Admission by consent of department chairman.

THE JAMES PINCKNEY HARRISON CHAIR OF HISTORY

The generosity of Mrs. James Pinckney Harrison and her son, Mr. James Pinckney Harrison, Jr., has enabled the College to establish an endowed chair in History in honor of James Pinckney Harrison, Sr. The purposes of this endowment are explained by the donors as follows:

The James Pinckney Harrison Chair of History is established to encourage the study of history as a guide for the future, as a field of absorbing interest and pleasure, and as a source of the wisdom, charm and gentility exemplified by James Pinckney Harrison. Born in Danville in 1896, he spent much of his life until his death in 1968 in Charles City County, not far from "Berkeley," his ancestral home. Far-ranging travels for business and country led him to an appreciation of many cultures of the world, but also strengthened his love and commitment to Virginia. As Chairman of the Board of Universal Leaf Tobacco Company of Richmond for many years, James Pinckney Harrison served in many civic, philanthropic and business affairs, ever enriching the life of those around him.

GRADUATE PROGRAM

The department offers the degrees of Master of Arts and Doctor of Philosophy. For degree requirements, and a full description of graduate courses in history, write to the department chairman for a Graduate Catalog.

The History Department in cooperation with the Institute of Early American History and Culture, the Earl Gregg Swem Library, and the Department of Anthropology offers a combined program of academic study for the degree of Master of Arts in History and practical training in the Editing of Historical Books and Magazines, the Operations of a Historical Library, and Historical Archaeology. The programs run from July 1 through August 31 of the succeeding year.

Interdisciplinary Study

The curriculum of the Faculty of Arts and Sciences provides for interdisciplinary concentrations. A student formulates an interdisciplinary concentration in consultation with a faculty advisor, subject to approval by the Committee on Interdisciplinary Study. Among the programs available for interdisciplinary concentrations, for example, are Comparative Literature, Black Studies, Latin American Studies, Environmental Studies, Asian Studies and Urban Studies. Programs are submitted to the Committee on application forms which are available from the office of the Dean of Students.

All interdisciplinary programs must be compatible with the degree requirements of the Faculty of Arts and Sciences. No concentration may exceed 42 hours or be less than 30 hours. The responsibility for formulating a sound academic program of interdisciplinary study lies with the individual student and the advisor. Normally, each student pursuing an interdisciplinary concentration bases his program upon a solid understanding of and proficiency in one of the established disciplines.

495-496. Interdisciplinary Honors (3,3)

Students admitted to Interdisciplinary Honors will be enrolled in this course during both semesters of their senior year. Each candidate will be responsible for (a) formulating a program of study in consultation with a faculty advisor; (b) preparation and presentation by May 1 of an honors essay; (c) satisfactory performance in a comprehensive oral examination which focuses on the subject matter of the honors essay.

Law

301. Introduction to Law. Fall (2) Ms. Lang.

The nature and function of our system of jurisprudence, including a survey of procedural concepts, trial strategies, constitutional law, and the law of torts, crimes, and contracts.

Mathematics

ASSOCIATE PROFESSOR O'NEIL (Chairman of the Department). PROFESSORS CATO, REYNOLDS AND SOUTHWORTH. ASSOCIATE PROFESSORS BYNUM, LAWRENCE, PROSL, RUBLEIN, SANWAL, STANFORD AND TURNER. ASSISTANT PROFESSORS CONNER, DONEGAN, DREW, EASLER, GIBBS, KATZKE, MARGOLIS, MILLER, POOLE, RABINOWITZ, AND STOCKMEYER. SENIOR RESEARCH ASSOCIATE ANDERSEN. ADJUNCT ASSISTANT PROFESSOR ROSENBAUM. ADJUNCT PROFESSOR ORTEGA.

AREA AND SEQUENCE REQUIREMENTS

The basic college requirement concerning Area 3 may be satisfied in Mathematics by taking any two of the courses.

Mathematics 105, 106, 111, 112

The in-depth or sequence requirement may be satisfied by taking any two other Mathematics courses numbered 211 or above. A student who has successfully completed Math 211 or any higher numbered course will not be allowed to enroll in Math 105 or Math 106.

CONCENTRATION PROGRAM

The department's program includes two major tracks: (1) Concentration in mathematics and (2) concentration in mathematics with a computer science option.

MATHEMATICS

A wide choice of courses is offered which enables a student to be trained in several areas including preparation for graduate school in mathematics, teacher certification and industry. The basic concentration requirements for all of these areas are as follows:

- 1. Math 111, 112, 211, 212, 311, 405, 407
- 2. Twelve semester hours chosen from courses in mathematics numbered above 300.

COMPUTER SCIENCE OPTION

Computer Science is the study of computers and the phenomena surrounding them. The discipline is intimately involved with the representation, manipulation and presentation of information. It is also concerned with the organization, application and the theoretical characterization of the properties and limitations of computers. This concentration was developed in order to give students the training necessary to enter graduate school in computer science and to obtain employment as computer professionals. Concentration requirements for this option are as follows:

- 1. Math 111, 112, 211, 212, 342, 401, 407, 413
- 2. C.S. 141, 241, 242
- 3. Three more hours chosen from Math 414, 431, 432, C.S. 441, 442.

DESCRIPTION OF COURSES

103. Algebra-Trigonometry. Fall and Spring (3,3) Staff.

A study of the real number system, sets, functions, graphs, equations and inequalities, systems of equations, matrices and determinants, followed by a study of the trigonometric functions and their properties. Recommended only for science majors who have a deficiency in their training. This course may not be applied either towards concentration in mathematics or towards satisfaction of college area requirements.

105, 106. Fundamental Concepts of Mathematics. (A) Fall and Spring (3,3) Staff.

These courses are designed to provide the non-science student with an insight into the nature and scope of modern mathematics.

- **105.** A study of set theory and cardinality, number theory and abstract algebra and topics from topology and matrix theory.
- **106.** A study of computer programming, probability and topics from analysis, game theory and linear programming.
 - 111-112. Calculus. (A) Fall, Spring (3,3) Staff.

Inequalities, absolute value; the concept of a function, limits and derivatives of functions, the Mean Value Theorem; applications to maxima and minima, related rates, and linear motion; the definite integral and the Fundamental Theorem of Integral Calculus; techniques of integration; improper integrals; applications to areas, volumes, work and moments.

211. Linear Algebra. (AS) Fall, Spring (3) Staff. Prerequisite: Math 112.

An introduction to vector spaces, linear transformations, matrices and determinants; eigenvalues and eigenvectors.

212. Introduction to Multivariable Calculus. (AS) Fall, Spring (3) Staff. Prerequisite: Math 211 or consent of the chairman of the department.

Functions of several variables, surfaces in three-space, vectors, techniques of partial differentiation and multiple integration with applications.

213. Linear Programming. (AS) Spring (3) Staff. Prerequisite: Math 211.

A careful study of algebra for linear programming. The simplex method, degeneracy, duality and its interpretations, transportation problems. These methods will be applied to models from economics and business.

222. Ordinary Differential Equations. (AS) Spring (3) Staff. Prerequisite: Math 211 or the consent of the head of the department.

First order differential equations, initial value problems, second order linear differential equations, systems of linear differential equations and Laplace transforms.

*308. Geometry. (AS) Spring (3) Mr. Reynolds. Prerequisite: Consent of the Instructor.

Axioms and deductive reasoning; some advanced Euclidean geometry including cross ratio and axiomatic systems; synthetic and coordinate projective geometry; duality; perspectivity; conics. Recommended for prospective teachers.

311. Advanced Calculus. (AS) Fall and Spring (3,3) Messrs. Prosl and Stanford. Prerequisite: Math 212.

Analysis of functions mapping the real numbers to the real numbers. Topics are chosen from those normally studied in classical analysis, in particular, uniform continuity of functions and uniform convergence of sequences and series and interchange of limits. The convergence of Fourier series will also be studied.

342. Discrete Structures. (S) Spring (3) Staff. Prerequisite: C.S. 141, Math 211.

Fundamental algebraic, logical, and combinatoric concepts from mathematics which are needed for advanced work in computer science.

344. Combinatorial Analysis. (S) Spring (3) Staff. Prerequisite: Math 211.

Elementary counting functions, partitions, inversion formulas, Polya's theorem, finite geometries, and Latin squares.

†401-402. Probability and Statistics. (S) Foll and Spring (3,3) Mr. Rabinowitz. Prerequisite: Moth 212.

First semester topics include: combinatorial analysis, Bayes's Theorem, discrete and continuous probability distributions and characteristics of distributions. The second semester deals with satistical inference theory and applications including sampling from probability distributions, estimation, hypothesis testing, confidence methods, regression analysis, sequential analysis, and non-parametric statistics.

†403-404. Intermediate Analysis. (S) Fall and Spring (3,3) Mr. Bynum. Prerequisite: 312.

Set theory; the real number system; analysis in metric spaces including continuity and convergence; normed linear spaces; integration and differentiation theory.

†405 Complex Analysis. (S) Fall or Spring (3) Mr. Lawrence. Prerequisite: Math 312.

The complex plane, analytic functions, Cauchy Integral Theorem and the calculus of residues, Taylor and Laurent series; analytic continuation; conformal mapping and boundary value problems.

†407-408. Abstract Algebra. (S) Fall and Spring (3,3) Messrs. Miller and Stockmeyer. Prerequisites: Moth 212.

Groups, rings, isomorphism theorems, polynomials, modules, vector spaces; linear transformations, matrices, Jordan and other canonical forms, quadratic forms.

†410. Special Topics. (S) Fall or Spring (1, 2 or 3 depending upon material covered.) Staff.

Topics selected from Theory of Equations, Projective Geometry, Linear Algebra, Intermediate Analysis, Applied Mathematics, etc.

†412. Introduction to Number Theory. (S) Fall (3) Mr. Reynolds. Prerequisite: Consent of the Instructor.

An elementary course in the theory of integers, divisibility and prime numbers; a study of Diophantine equations, congruences, number theoretical functions, decimal expansion of rational numbers and quadratic residues. Recommended for prospective secondary teachers of mathematics.

‡413-414. Topics in Numerical Analysis. (S) Fall and Spring (3,3) Mr. Southworth. Prerequisites: Math 212 and computer programming.

The topics to be discussed the first semester are roots of equations, solutions of systems of linear equations by matrix methods, eigenvalues and eigenvectors of matrices, interpolation, numerical evaluation of integrals, and numerical differentiation.

The second semester topics include empirical data curve fitting, integration of systems of ordinary differential equations of both the initial value and boundary value type.

421. Continuous Models of Applied Mathematics. (S) Spring (3) Mr. Drew. Prerequisite: Math 405.

The construction and analysis of continuous models in applied mathematics. Topics will include partial differential equations, Fourier analysis, calculus of variations, special functions and Laplace transforms.

423. Discrete Models of Applied Mathematics. (S) Fall (3) Mr. Drew. Prerequisite: Math 401.

The construction and analysis of discrete models in applied mathematics. Topics will be chosen from linear optimization, flows and networks, Markov chains, queuing problems, inventory problems and growth models.

431. Mathematical Theory of Finite Automata. (S) Fall (3) Staff. Prerequisites: A course in abstract algebra.

An introduction to APL, logical functions and Boolean algebra; the theory of sequential machines and neural nets; the concepts of state- and machine-equivalence; deterministic and non-deterministic finite automata and regular expressions; semigroups and abstract machines.

432. Introduction to the Theory of Computability. (S) Spring (3) Staff. Prerequisite: Moth 431.

The notions of effective procedure, algorithm and Turing machine; modifications of Turing machines; Church's Thesis and computability; recursive functions and LISP; other models for general computability and their equivalence; Post's symbol manipulation systems and the normal form theorem.

451. Survey Sampling. Spring (3) Mr. Rabinowitz. Prerequisite: An introductory course in Statistics or consent of the instructor.

An introduction to the design and analysis of sample surveys intended for students of business and the social sciences. Topics include simple random sampling, stratified sampling, cluster sampling, systematic sampling and ratio estimation. Practical aspects of survey problems are emphasized using applications to auditing and accounting problems, political and economic polls, sociological studies, psychological experiments and wildlife management. The course is not open to math concentrators.

*495-496. Honors. Fall and Spring (3,3) Staff.

Students admitted to Honors Study in Mathematics will be enrolled in this course during both semesters of their senior year. The course comprises;

(a) supervised research in the student's special area of interest;

(b) the preparation and presentation by May 1 of an Honors Thesis; and

(c) satisfactory performance in a comprehensive oral examination in the field of the student's major interest.

COMPUTER SCIENCE

Credit will not be allowed for both C.S. 130 and C.S. 141.

C.S. 130. Fundamental Concepts of Computing. Fall and Spring (3,3) Mr. Katzke.

Introduction to computing concepts, computer programming, and various applications.

C.S. 141. Introduction to Computer Science. Foll and Spring (3,3) Staff.

The solution of computational problems by use of digital computers. Subjects covered are the development of mathematical models, the concept of algorithms, the use of flow charts in describing computational processes, and the concept and use of programming languages, including FORTRAN and an algorithmic language such as AL-GOL.

C.S. 241. Advanced Programming. Foll and Spring (3,3) Staff. Prerequisite: C.S. 141.

An introduction to advanced features of modern programming languages with the purpose of abstracting the underlying concepts from these languages. Topics include machine language programming, assembler language programming, and organization of digital computer. Students will be required to write several programs.

C.S. 242. Computer Software. Fall and Spring (3,3) Mr. Poole. Prerequisite: C.S. 241.

The organization of computer software and related problems. Topics include mi-

croprogramming, Input-Output facilities, and operating systems. Students will complete several programming assignments which will include the design and implementation of a simulator, an assembler, an elementary loader, and a simple batch processing monitor for a hypothetical digital computer.

C.S. 441. Compiler Construction. Fall (3) Mr. Gibbs. Prerequisite: C.S. 242, Math 342.

The analysis of source language and the generation of efficient object code with emphasis on syntax directed methods. Students will be required to complete a term project.

C.S. 442. Higher Level Languages. Spring (3) Mr. Gibbs. Prerequisite: C.S. 241, Math 342.

A survey of string manipulations and list processing languages. The relationship between source programs and their run-time representation will be considered. Students will be required to write programs in several different languages.

GRADUATE PROGRAM

The department offers the degrees of Master of Arts and Master of Science. For degree requirements, and a full description of graduate courses in mathematics, write to the department chairman for a Graduate Catalogue. Attention is also called to the Graduate Program in Applied Science on p. 181.

Military Science (Army)

PROFESSOR COLONEL HOCKADAY (Chairman of the Department) ASSISTANT PROFESSORS LTC FOLGER, MAJOR SCHMIDT, MAJOR ZELTNER and CAPTAIN GERARD.

A unit of the Reserve Officers' Training Corps was established at the College of William and Mary on July 1, 1947, with an assigned mission to qualify students for positions of leadership and management in the Armed Forces in time of national emergency.

The courses are designed specifically to educate students in general military science. The course provides the student a college level program of general military sub-

jects and stresses the fundamentals of leadership.

Any student who is a citizen of the United States, physically qualified, and not already holding a commission in any of the Armed Forces may, when he matriculates, enroll in Military Science 100 or 101. Those meeting the above qualifications but who have had prior military experience, whether in the Armed Forces or in another college, or in Junior ROTC in high school, may, commensurate with the degree of such experience, enroll in Military Science at a higher level. Transfer students desiring to take advantage of previous military courses should consult the Professor of Military Science when they matriculate.

Those who complete this program may, upon graduation from the College, be commissioned as Second Lieutenants, United States Army Reserve. Outstanding ROTC cadets will be offered a commission in the Regular Army under the provisions of the

Distinguished Military Graduate Program.

Freshmen and sophomore students are furnished standard government issue uniforms. They incur NO military obligation during the first two years of ROTC. Those who enroll in the advanced course receive tailored officer-type uniforms. Students enrolled in the advanced course become members of the Enlisted Reserve and receive an allowance of \$100.00 per month. Advanced course students are required to attend summer camp for a period of six weeks, normally between their third and fourth years at college, and are paid one half of a second lieutenant's salary during that period. They also receive travel pay to and from camp, and while there, are rationed and quartered at government expense.

Current regulations permit a delay in the active duty training of newly commissioned students who have been accepted for graduate work in a recognized field. Another option, subject to the needs of the service, permits the newly commissioned officer to serve 12 weeks on active duty and fulfill his remaining obligation in a reserve

status.

Army ROTC Scholarship Program. This program offers free tuition, textbooks and fees in addition to paying an allowance of \$100.00 per month. Scholarships are provided under provisions of Public Law 88-647, The ROTC Vitalization Act of 1964. Four year scholarships are awarded to outstanding high school seniors and interested students are encouraged to write this office if high school counselors do not have information on the program. One, two and three year scholarships may be applied for through the Professor of Military Science.

Requirements for commissioning: 4 yr program—all courses listed & Advanced Camp

2 yr program—MS 300, MS 301, MS 302 & Advanced Camp, MS 401 and MS 402

^{&#}x27; For those students desiring to participate, there is a 2 year program available beginning with the summer prior to the junior year and extending through completion of the senior year. Details available at the office of the Department of Military Science.

MILITARY SCIENCE (ARMY)

DESCRIPTION OF COURSES

100.* American Military Development. Fall and Spring (3) Major Schmidt, Captain Gerard.

An analysis of American Military History. The course begins with the French and Indian War and traces American Military Development to the present. Emphasis is given to the principles of war and to the development of tactics.

101. Military Science I. Fall and Spring (0, 0) Captain Gerard.

Introduction to military terminology, concepts, leadership and management principles.

201-202. Military Science II. Fall and Spring (0, 0) Major Schmidt. Prerequisites: MS 100-101.

Introduction to small group leadership and management techniques; map and aerial photograph interpretation with emphasis on the principles of military terrain evaluation and land navigation; introduction to military operations and tactics.

300.* American Civil-Military Relations. Fall (3) LTC Fogler.

Theory of civil-military relations and their impact on the contemporary world scene. Emphasis is placed on the extent to which these relations tend to affect the military security of society. Case studies of historical and contemporary military leadership and management are examined.

301-302. Military Science III. Fall and Spring (0, 0) LTC Fogler.

A study of management and control of small unit operations under field conditions with special emphasis given to offensive/defensive tactics, communications, and internal defense and development. Fundamentals of military instruction are taught with emphasis on practical application. Physical fitness and review of previous subjects are stressed in preparation for summer camp.

401-402. Military Science IV. Fall and Spring (0, 0) Major Zeltner.

Analysis of selected leadership and management problems involved in administration, military justice, and tactics; leadership and management problems in the military services.

 $^{^{*}\}mathrm{MS}$ 100 and MS 300 courses are open to all students at the College for credit with the permission of the Professor of Military Science.

Modern Languages 1

ASSOCIATE PROFESSOR DIDUK (Chairman of the Department), PROFESSORS KALLOS, MOORE, OUSTINOFF, ASSOCIATE PROFESSORS BACKHAUS, COKE, COX, KURTZ, LAVIN, MARTEL, NETICK. ASSISTANT PROFESSORS BABENKO, BASSO, CLOUTIER, FRASER, GOFF, HALLETT, KELLEY, LITTLEFIELD, MARCHESSEAU, PALMAZ, PETRILLO, SAINT-ONGE, G. SMITH, J. SMITH, A. TYLER, WELCH, INSTRUCTORS COOKE, J. TYLER.

Courses in the 100⁻² and 200 groups are designed to give a well-rounded linguistic experience, including the spoken as well as the written language, and to develop an awareness and appreciation of other cultures. Language laboratory is an integral part of courses 101 and 102; three class meetings and two hours in the language laboratory.

Courses in the 300 and 400 groups are designed to give further experience in the principal facets of language study, a reasonable knowledge of the literature, some experience in literary criticism, to the end that the student may experience in some degree the humanizing process which derives from the study and understanding of foreign languages and cultures. Courses in general are conducted in the foreign language.

For those who show a special interest in French, German or Spanish, the College has established language houses where such students may request residence with others who elect to use a foreign idiom as a means of communication. Foreign students in residence provide an opportunity for unstructured language learning as well as a source of information on current living in the target language countries.

The suitability of the Department's offerings to an Interdisciplinary concentration is further enhanced by the literature courses in translation, which extend the vast areas of French, German, Italian, Spanish and Russian literature otherwise not readily available to students who do not major in language study.

The Department is also actively engaged in courses of Comparative Literature and in interdisciplinary programs. In relating their language skills to the exploration of topics which transcend national boundaries, the students obtain a broad view of the European and Latin American communities.

Students concentrating within the area of Modern Languages are required to take at least two semester courses in a second foreign language, either ancient or modern.

Comparative Literature 201, 202 may be combined with any courses in the Modern Languages Department labelled (S) in order to make a sequence in Comparative Literature.

Modern Languages 203. (A) A Linguistic Survey of Major East-Asian Languages. Spring (3).

For students interested in learning about the mechanism and characteristics of languages very different from those of the West and about their systems of writing. The aim is not to learn Chinese, Japanese and Korean, but to learn about them. Short examples and tapes for illustration.

FRENCH

Requirements for Concentration

The following courses are required for concentration in French: French 321, 332, 404, 405; also, either 341 or 342 and either 351 or 352: a minimum of nine additional hours will be chosen from among the 300 and 400 courses.

¹ The proficiency requirements for foreign languages are indicated on page 61. All language requirements for a degree should be begun in the freshman year.

² No credit will be counted toward a degree for the first semester of an elementary foreign language unless followed by the successful completion of the second semester of that language.

DESCRIPTION OF COURSES

101-102. Elementary French. Fall and Spring (4, 4) Staff.

Students who have acquired 2 high school units in French may not take French 101-102 for credit. Training in grammar, pronunciation, aural-oral comprehension with the use of audio-visual techniques. Three Closs Hours, Two Laboratory Hours.

201. Readings in French and Grammar Review. Fall (3) Staff. Prerequisite: two high school units, or the equivalent. Students who have acquired three high school units in French may not take 201 for credit.

A review and continuation of the study of French grammar, incorporated with the continued development of reading, writing, speaking, and comprehension skills.

202. Intermediate Readings in French Literature. Foll and Spring (3) Staff. Prerequisite: three high school units, or French 201, or the equivalent.

Selected readings from French literature of the nineteenth and twentieth centuries.

205. Intermediate Composition and Conversation. Fall and Spring (3) Staff. Prerequisite: French 202 or the equivalent.

Review of main principles of syntax. Composition.

206. Intermediate Conversation. Fall and Spring (3) Staff. Prerequisite: French 205 or the equivalent.

Phonetics; intensive oral-aural training. Discussions of topics in French life and culture; student presentations.

207. Advanced Readings in French Literature. (AS) Foll (3) Staff. Prerequisite: four high school units or 202 or the equivolent.

Selected readings from the Renaissance to modern times. A reading course designed as an introductory step to the 300 courses in literature.

208. The French Heritage. (AS) Spring (3) Staff. Prerequisite: four high school units or 202 or the equivalent.

A course embodying the most important elements of French culture from early times to the present.

*301.1 A Survey of French Literature from the Middle Ages through the 17th century. (AS) Fall (3) Mr. Oustinoff and Mr. St. Onge. Prerequisite: four high school units or 202 or the equivalent.

A study of the historical development of the literary genres from the Middle Ages to the 18th century.

*302. A Survey of French Literature from the 18th century into the 20th century. (AS) Spring (3) Mr. Oustinoff and Mr. St. Onge. Prerequisite: French 301 or the equivolent.

A study of the historical development of the literary genres from the 18th century to modern times

311. Literature of the Middle Ages. (AS) Spring (3) Mr. Hallett. Prerequisite: French 301 or 302 or the equivalent.

A study of French literature up to 1500: representative works. (Most texts are read in Modern French translation.)

¹ Recommended as an introduction to all "300" level literature courses.

312. Renaissance Literature. (AS) Spring (3) Mr. Hallett. Prerequisite: French 301 or 302 or the equivalent.

A study of the major writers of the French Renaissance.

321. Seventeenth-Century French Literature I. (AS) Fall [3] Mr. Cloutier and Mr. Tyler. Prerequisite: French 207 or 301 or 302 or the equivalent. Required of all concentrators.

Dramatic literature of the seventeenth century, emphasizing the major works of Corneille, Molière, and Racine.

322. Seventeenth-Century French Literature II. (AS) Spring (3) Mr. Coke. Prerequisite: French 207 or 301 or 302 or the equivalent.

Non-dramatic literature of the seventeenth century: the baroque poets, Malherbe, Pascal, La Fontaine, Boileau, and other major writers of the period.

331. Eighteenth-Century French Literature I. (AS) Fall (3) Mr. Martel. Prerequisite: French 207 or 301 or 302 or the equivolent.

The novel and the theatre of the eighteenth century.

332. Eighteenth-Century French Literature II. (AS) Spring (3) Mr. Coke. Prerequisite: French 207 or 301 or 302 or the equivalent. Required of all concentrators.

A study of the major writers of the French Enlightenment: Montesquieu, Voltaire, Diderot, Rousseau, and others.

341. Nineteenth-Century French Literature I. (AS) Foll (3) Mr. St. Onge. Prerequisite: French 301 or 302 or the equivalent. Concentrators must take either French 341 or 342.

A study of the major romantic writers in France.

342. Nineteenth-Century French Literature II. (AS) Spring (3) Mr. Martel. Prerequisite: French 301 or 302 or the equivolent. Concentrators must take either 341 or 342.

The novel of the nineteenth century with special emphasis on Balzac, Stendhal, Flaubert, and Zola.

350. Modern French Poetry. (AS) Spring (3) Mr. St. Onge. Prerequisite: French 341 or at least nine hours of 300 literature courses or the equivalent.

From the post-romantic poets to the present with special emphasis on Baudelaire, the Symbolists, and the Surrealists.

*351. Twentieth-Century French Literature I. (AS) Fall (3) Mr. Oustinoff. Prerequisite: Two "300" level courses other than 301 or 302, or the equivalent. Concentrators must take either 351 or 352.

A study of representative writers and works up to 1939.

*352. Twentieth-Century French Literature II. (AS) Spring (3) Mr. Cloutier. Prerequisite: Two "300" level courses other than 301 or 302, or the equivalent. Concentrators must take either 351 or 352.

A study of representative writers and works since 1939; existential literature, the new novel, the theater of the absurd.

387. Contemporary French Drama and its Influence. (AS) Fall (3) Mr. Goke. Not open to concentrators in French. Same as Comparative Literature 307.

A study of trends in the modern French theater through selected readings of significant contemporary writers. The course includes discussion and reading of other major European or American writers connected with the French movement.

388. Contemporary French Novel and its Influence. (AS) Spring (3) Mr. St. Onge. Not open to concentrators in French. Same as Comparative Literature 304.

A study of trends in the modern French novel through selected readings of significant contemporary writers. The course includes discussion and readings of other major European or American writers connected with the French movement.

404. Advanced Grammar and Composition. (AS) Spring (3) Mr. St. Onge. Prerequisite: French 205 and another 200 course or the equivalent.

Advanced syntax and intensive written work.

405. Advanced Conversation I. (AS) Fall (3) Staff. Prerequisite: French 206 or unother 200 course or the equivalent. Required of all concentrators.

Advanced intensive oral-aural training.

406. Advanced Conversation II. (AS) Spring (3) Staff. Prerequisite: French 405 or the equivalent.

Advanced intensive oral-aural training.

407. French Phonetics and Diction. (AS) Spring [3] Mr. Oustinoff. Prerequisite: French 206 and another 200 course or the equivalent. This course may be taken concurrently with French 406. Recommended for students who expect to teach French in high school.

Intensive study of phonetics, with particular attention given to the exceptions to the "rules" of French pronunciation and to individual problems.

408. Advanced Writing in French. (AS) Fall (3) Mr. Cloutier. Prerequisite: French 404 or the equivalent.

An intensive course in writing and language analysis.

431. The French Theatre. (AS) Fall (3) Mr. Coke. Prerequisite: Concentrators must have completed nine hours of 300 or 400 literature courses; non-concentrators must have the consent of the instructor. (Not offered 1974–75).

A critical study of the development of the theatre in France from the Renaissance to modern times.

450. Seminar in French Literature. (AS) Foll and Spring (3) Staff. Prerequisite: at least nine hours of 300 or 400 literature courses.

Recommended for concentrators who expect to continue with graduate study. A study in depth of a limited literary topic. Students will write and present papers for critical discussion.

495-496. Honors. Fall and Spring (3, 3) Staff. (See page 63).

GERMAN

Requirements for Concentration

Twenty-seven semester credits are required for concentration in German including German 207, 301, 302, 303, 305 and at least three courses from the 400 level. These courses are also open to qualified students who are not concentrating in German.

DESCRIPTION OF COURSES

101-102. Elementary German. Fall and Spring (4, 4) Staff. Students who have acquired two high school units in German may not take German 101-102 for credit.

Training in pronunciation, grammar, aural-oral comprehension with the use of audio-visual techniques. Three Closs Hours, Two Loboratory Hours.

201. Graded Readings in German Prose. Fall (3) Staff. Prerequisites: German 101 and 102 or the equivalent.

A grammar review with prose readings.

202. Readings in Masterpieces of German Literature. Fall and Spring (3) Staff. Prerequisite: three high school units or 201 or the equivalent.

Selected readings from the masterpieces of German literature.

204. Scientific German. Spring (3) Mr. G. Smith. Prerequisite: Germon 201 or the equivalent.

Reading of scientific texts in chemistry, physics, biology, and general science.

205. Intermediate Grammar and Composition. Fall and Spring [3] Miss Backhaus, Mr. Kallos. Prerequisite: four high school units or 202 or the equivalent.

Review of main principles of syntax; composition.

206. Intermediate Conversation. Foll and Spring (3) Ms. Diduk and Mr. G. Smith. Prerequisite: German 205 or the equivalent.

Phonetics; intensive oral-aural training; discussion of topics in contemporary German life and culture; student presentations.

207. The German-Speaking Peoples and Their Civilization. (AS) Foll and Spring (3) Ms. Backhaus and Mr. Kurtz. Prerequisite: four high school units or 202 or the equivalent.

Reading course embodying the most important elements of Germanic Civilization, designed as an introductory step to the 300 courses. The course includes illustrated lectures, readings and student reports.

208. Introduction to German Literature. (AS) Foll and Spring (3) Mr. J. Smith and Mr. M. Kelley. Prerequisite: German 207 or 202.

A study and discussion of representative genres of German literature, designed as an introductory step to the 300 courses.

301. German Literature from the Beginning to 1700. (AS) Foll (3) Mr. J. Smith. Prerequisite: German 207 or the equivalent.

A survey of German Literature from its beginning to the end of the Baroque.

302. German Literature from 1700 to 1830. (AS) Spring (3) Ms. Backhaus. Prerequisite: German 207 or the equivalent.

A survey of German Literature covering the periods of Enlightenment and Classicism.

303. German Literature from **1830** to the Present. (AS) Fall (3) Mr. G. Smith. Prerequisite: German 207 or the equivolent.

A survey of German Literature covering the periods of Poetic Realism, Naturalism and the Modern Age.

305. Advanced Grammar and Composition. (AS) Fall (3) Ms. Backhaus. Prerequisite: Germon 205 or the equivolent.

Advanced syntax and intensive written work including essays.

306. Advanced Conversation. (AS) Spring (3) Ms. Diduk. Prerequisite: Germon 206 or the equivalent.

Advanced intensive oral-aural training. Discussions of German society and current affairs based on reading of current journals and periodicals.

387, 388. Survey of Twentieth Century German Literature in English. (AS) Fall and Spring (3, 3) Mr. Kallos, Ms. Diduk. Not open to concentrators in German.

A survey of twentieth-century masterpieces of German literature. First semester: the novel and novelle; second semester: drama and poetry.

397, **398**. Contemporary German Authors in English Translation. (AS) Fall and Spring (3, 3) Staff. Open to concentrators in German as an elective.

The study in depth of a significant German writer of modern times. First semester: Hermann Hesse. Second semester: Thomas Mann.

401. The Romantic Age. (AS) Fall (3) Mr. G. Smith. Prerequisite: German 302 or the equivalent.

An intensive study of the literary masterpieces of the period between 1790 and 1830.

402. Twentieth Century German Literature. (AS) Spring (3) Mr. Kallos. Prerequisite: German 303 or the equivalent.

An intensive study of the literature of our own age, with emphasis on the drama and the novel.

 $\bf 403.$ German Poetry. (AS) Fall (3) Mr. Kelley. Prerequisite: One of the 300-level survey courses or the equivalent.

Reading and interpretation of outstanding poetic works from the seventeenth century to the present.

404. Goethe. (AS) Spring (3) Ms. Backhaus. Prerequisite: 302 or the equivalent.

Reading and interpretation of Goethe's works with emphasis on the pedagogical and philosophical aspects.

405. Nineteenth Century German Drama. (AS) Fall (3) Ms. Backhaus. Prerequisite: German 303 or the equivalent.

An intensive study of German Drama of the period from 1830 to 1900. (Not offered 1974-75).

406. History of the German Language. (AS) Spring (3) Mr. Kurtz. Prerequisite: German 207 or the equivalent.

A study of the history of the German Language from its origins to the present.

495-496. Honors. Fall and Spring (3, 3) Staff. (See page 63).

ITALIAN

101-102. Elementary Italian. Fall and Spring (4, 4) Staff. Students who have acquired two high school units of Italian may not take Italian 101-102 for credit.

Training in pronunciation, grammar, aural-oral comprehension with use of audiovisual techniques. Three Class Hours, Two Laboratory Hours.

201. Intermediate Italian. Fall (3) Ms. Basso and Mr. Petrillo. Prerequisites: Italian 101 and 102 or the equivalent.

A grammar review which includes prose readings, composition and oral practice.

202. Readings in Italian Literature. Spring (3) Ms. Basso and Mr. Petrillo. Prerequisite: Italian 201 or the equivalent.

Selected readings primarily from the literature of the twentieth century.

206. Intermediate Conversation. Foll and Spring (3) Ms. Basso. Prerequisite: Italion 202 or the equivolent.

Phonetics; intensive oral-aural training; discussions of topics in contemporary Italian life and culture; student presentations.

301. Masterpieces of Italian Literature from the Beginnings to the 17th Century. (AS) Fall (3) Ms. Basso. Prerequisite: four high school units of 202 or the equivalent.

Survey of Italian Literature. Study of representative works.

302. Masterpieces of Italian Literature Since the 17th Century. (AS) Spring (3) Ms. Basso. Prerequisite: Italian 301 or the equivalent.

Survey of Italian Literature. Study of representative works.

305, 306. Directed Reading in Italian Literature. (AS) Fall and Spring (3, 3) Ms. Basso, Mr. Petrillo. Prerequisite: Italian 301 and 302 or the equivalent.

This course is designed to permit the student to pursue in depth an area of literature in which he has a major interest.

387. Masterpieces of Italian Literature in English I. (AS) Fall. Mr. Petrillo.

An introduction to the major writers in Italy from the 13th century to the 18th century.

388. Masterpieces of Italian Literature in English II. (AS) Spring Mr. Petrillo.

An introduction to the major writers in Italy from the mid 18th century to the present.

RUSSIAN

101-102. Elementary Russian. Foll and Spring (4, 4) Ms. Netick. Students who have acquired two high school units of Russian may not take Russian 101-102 for credit.

Training in pronunciation, grammar, aural-oral comprehension with use of audiovisual techniques.

201. Intermediate Russian. Foll (3) Ms. Netick. Prerequisites: Russian 101 and 102 or the equivolent.

Review of the fundamentals of grammar and pronunciation and reading of moderately difficult texts.

202. Readings in Masterpieces of Russian Literature. Spring (3) Ms. Netick. Prerequisite: Russian 201 or the equivalent.

Selected readings from Russian literature of the 19th century.

301. Survey of Russian Literature from the Beginning to 1850. (AS) Fall (3) Ms. Babenko. Prerequisite: four high school units or 202 or the equivalent.

Survey of literature up to 1850. Study of representative works.

302. Survey of Russian Literature from 1850 to the Present. (AS) Spring (3) Ms. Netick. Prerequisite: Russian 301 or the equivalent.

Survey of Russian literature from 1850 to the present. Study of representative works.

305, 306. Directed Reading in Russian Literature. Fall and Spring (3, 3) Ms. Netick. Prerequisite: Russian 301 and 302 or the equivalent.

This course is designed to permit the student to pursue in depth an area of literature in which he has a major interest.

387, 388. Survey of Russian Literature in English. (AS) Fall and Spring (3, 3) Ms. Netick.

A chronological survey of Russian literature from its beginnings to the Soviet Period, with emphasis given to the major writers of the 19th Century.

397. Dostovevsky in English Translation. (AS) Fall (3) Ms. Babenko.

A study in English translation, of Dostoyevsky's chief works, with due attention to the political and literary milieu in which he wrote.

398. Tolstoy in English Translation. (AS) Spring (3) Ms. Babenko.

A study in English translation, of Tolstoy's life and chief literary works.

SPANISH

Requirements for Concentration

Thirty semester credits are required for concentration in Spanish including Spanish 301, 302, 305, 306 and at least six other courses from the 300 and 400 levels. Concentrators may not take 310 and above without first taking 301 and 302. In the courses above Spanish 205 Spanish will be the language of instruction. Each 400-level course will normally be offered every other year.

DESCRIPTION OF COURSES

101-102. Elementary Spanish. Fall and Spring (4, 4) Staff. Students who have acquired two high school units in Spanish may not take Spanish 101-102 for credit.

Training in pronunciation, aural-oral comprehension with the use of audio-lingual techniques. Three Class Hours, Two Laboratory Hours.

201, 202. Intermediate level Spanish. Fall and Spring (3, 3) Staff. Prerequisite: two high school units for 201, three high school units for 202 or the equivalent. Students who have acquired three high school units in Spanish may not take 201 for credit.

A review and continuation of the study of Spanish grammar, incorporated with the continued development of reading, writing, speaking, and comprehension skills.

205. Intermediate Grammar and Composition. Fall and Spring (3) Mr. Fraser. Prerequisite: Spanish 202 or the equivalent.

Review of main principles of syntax; composition.

206. Intermediate Conversation. Fall and Spring (3) Mr. Cox. Prerequisite: Spanish 205 or the equivalent.

Intensive oral-aural training: discussions of topics in Spanish life and culture, student presentations.

301. Spanish Literature from the Beginning to 1700. (AS) Fall (3) Mr. Moore and Mr. Cox. Prerequisite: Spanish 202 or the equivalent.

Survey of Peninsular Spanish literature.

302. Spanish Literature from 1700 to the Present. (AS) Spring (3) Mr. Moore and Mr. Cox. Prerequisite: Spanish 202 or the equivalent.

303. Latin-American Literature of the Colonial Period. [AS] Fall (3) Mr. Fraser. Prerequisite: Spanish 202 or the equivalent.

Survey of Latin-American Literature from its beginnings to the end of the colonial period.

304. Latin-American Literature from the Colonial Period to the Present. (AS) Spring [3] Mr. Fraser. Prerequisite: Spanish 202 or the equivalent.

Survey of Latin-American Literature from the end of the colonial period to the present.

305. Advanced Grammar and Composition. (AS) Fall (3) Mr. Littlefield. Prerequisite: Spanish 205 or the equivolent.

Intensive review of syntax; composition.

306. Advanced Conversation. (AS) Spring (3) Mr. Littlefield. Prerequisite: Spanish 305.

Intensive oral-aural training.

307, 308. Cultural History of Spain. (AS) Fall and Spring (3, 3) Mr. Lavin. Prerequisite: Spanish 206 or the equivalent.

A survey of artistic and literary trends as they relate to the history of Spain.

310. Seminar in Spanish or Latin-American Literature. (AS) Spring (3) Staff.

Topic or author to be indicated in the schedule of classes (Fall of 1974 La Celestina).

397, 398. Outstanding Spanish Authors in English Translation. (AS) Foll and Spring (3, 3) Staff. Not open to concentrators in Spanish.

In-depth study of such writers as Cervantes (Don Quijote), Calderón, Unamuno, García Lorca, etc. Specific author to be indicated in the schedule of classes each semester.

401. Medieval Spanish Literature. (AS) Fall (3) Mr. Lavin. (Not offered 1974-75).

Spanish literature from *El poema de mio Cid* through *La Celestina*. Study of representative works.

402. Cervantes. (AS) Spring (3) Mr. Moore.

Analysis of Cervantes' major works with particular emphasis on the Quijote and the Novelas ejemplares.

403. Prose and Poetry of the Golden Age. (AS) Fall (3) Mr. Lavin (Not offered 1974-75).

Non-dramatic literature of the sixteenth and seventeenth centuries with particular emphasis on the development of lyric poetry. Study of representative works.

404. Drama of the Golden Age. (AS) Spring (3) Mr. Lavin.

Survey of the drama from its beginnings. Detailed study of the drama of the Golden Age. Study of representative works.

406. Eighteenth-Century Spanish Literature. (AS) Spring (3) Mr. Cox.

Study of representative works in the novel, poetry, and drama.

407. Spanish Romanticism. (AS) Fall (3) Mr. Cox.

Study of representative works in the novel, drama, and poetry from Meléndez Valdés through Bécquer.

408. Spanish Realism and the Generation of '98. (AS) Spring (3) Mr. Goff.

Study of the realistic and naturalistic novel and representative works of the Generation of '98. The course also includes the poetry of Machado and Jiménez.

409. Contemporary Spanish Literature. (AS) Fall (3) Mr. Goff.

A study of the novel, drama, and poetry in Spain following the Generation of '98 and continuing to the present.

410. Spanish Phonetics and Introduction to Romance Philology. (AS) Spring (3) Mr. Littlefield. Prerequisite: Spanish 305 or 306.

Scientific analysis of articulation of sounds and the study of the interrelation of Spanish and other Romance languages.

411. Independent Study. Spring (3) Staff.

This course is designed to permit the student to pursue in depth an area of literature in which he has a major interest.



Music

ASSOCIATE PROFESSOR PALEDES (Chairman of the Department). PROFESSORS STEWART, TRUESDELL and VARNER. ASSOCIATE PROFESSOR LENDRIM. LECTURERS DARLING, GODSHALL, KNORR, KOLLER, KOMAN, LENDVAY, OWEN, and ROARK.

The Department of Music offers concentrations for (1) prospective school music teachers; (2) students interested in a liberal arts program with emphasis on music; and (3) students who wish to continue with graduate work in musicology, composing, theory, applied music, or library science.

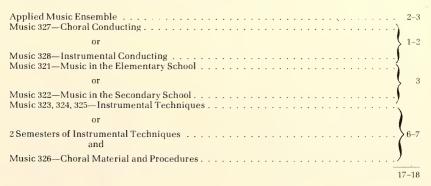
REQUIREMENTS FOR CONCENTRATION

The basic requirements for concentration in Music include 12 credits in Music Theory (Music 201, 202, 301, and 302); 6 credits in Music History (Music 311 and 312); 8 credits in Applied Music Instruction, in one field; and 10 more credits in music as indicated in the special concentration programs or in consultation with the Head of the Department. Proficiency at the Elementary Piano level is considered basic to all programs and is a requirement for graduation. All concentrators in Music are expected to participate in a senior recital, in lieu of which a term paper, an instrumental or choral arranging project, or an original musical composition may be accepted with Departmental approval.

Concentrators in Music are required to complete Senior level Applied Music Instruction courses in their major applied music field for graduation. In addition, they should complete courses in both instrumental and vocal techniques if their emphasis is in Music education.

Students preparing for the Virginia State College Professional Certificate are required by the Virginia Board of Education to qualify in general as indicated in the Education section of this catalog. Upgraded secondary specific endorsement requirements effective July 1, 1968 may be met if Theory 201 is begun in the sophomore year and Applied Music Instruction is begun in the Freshman year.

SPECIAL CONCENTRATION PROGRAMS IN PREPARATION FOR THE VIRGINIA COLLEGIATE PROFESSIONAL CERTIFICATE IN MUSIC



RECOMMENDED PROGRAMS FOR THE FIRST TWO YEARS

FRESHMAN YEAR

nglish	6
oreign Language	6-8
nysics 103 and 121 are recommended	8
lusic 201, 202—Theory I	6
pplied Music Instruction.	- 5
ppnied Music instruction	- 9
nysical Education	
3:	0 - 32
SOPHOMORE YEAR	
SOFTIOMORE TEAM	
P. Long and	6
nglish 203, 204	
oreign Language	6
istory 101, 102	(
lusic 301, 302—Theory II	(
lusic 323, 324—Instrumental Techniques	-
pplied Music Instruction (Piano)	2
hysical Education	
pplied Music Ensemble	:

Special concentration programs are available in Theory and Music History and Literature.

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DESCRIPTION OF COURSES

Theory

101. Introduction to Theory. Fall and Spring (2) Mr. Stewart.

Fundamental terms and concepts of music, the elements of notation, scales and tone systems. May not be included in music concentration. This course does not automatically enroll a student in Applied Music Ensemble; i.e., band, choir, et cetera. Students will be placed in sections according to their background.

102. Introduction to Form and Style. Spring (2) Mr. Stewart.

The underlying principles of musical structure. May not be included in music concentration.

*201-202. Theory I. Fall and Spring (3, 3) Mr. Stewart.

Review of theory fundamentals; elementary harmony; the uses of triads, seventh chords and non-chord tones are learned through exercises, diction, ear training and keyboard harmony.

301-302. Theory II. Fall and Spring (3, 3) Mr. Stewart. Prerequisite: Music 201-202.

Advanced harmony, dealing with simple and extended alteration, secondary dominants, and advanced modulation. Second semester, application of harmonic techniques to elementary composition.

401-402. Form and Analysis. Fall and Spring (2, 2). Prerequisite: Music 301-302.

The structural processes and forms of music, studied through analysis of examples of various periods and styles.

403, 404. Orchestration and Choral Arranging. Fall and Spring (2, 2) Mr. Stewart and Mr. Truesdell. Prerequisite: Music 301.

Fall, orchestration; Spring, choral arranging.

405, 406. Counterpoint. Fall and Spring (2, 2) Mr. Truesdell and Mr. Stewart. Prerequisite: Music 301.

Fall, counterpoint in the 16th century style of the motet, the madrigal and the Mass. Spring, counterpoint in the style of J. S. Bach.

MUSIC HISTORY AND LITERATURE

*150. Freshman Colloquium. Fall (3) Mr. Truesdell.

The antecedents and development of Jazz to the present. Students should have some musical background and knowledge of musical terminology. If this is lacking, students should register for Music 101 as a corequisite for the course.

211, 212. Introduction to Music. (A) Fall and Spring (3, 3) Mr. Lendrim and Mr. Paledes. A section of 211 will be offered as a Freshman Colloquium.

This course is designed to meet the needs of students interested in music, without regard to previous training and experience. It is not open to juniors or seniors concentrating in Music. The course traces the development of the art of music through the various historical periods, and familiarizes the student with the more important composers and their works. A synopsis of style, form, and theory is included. The Freshman Colloquium may not satisfy an Area requirement.

*311, 312. History. Fall and Spring (3, 3) Mr. Truesdell. Prerequisite: Music 201-202.

Fall, Ancient Greeks to 1800; Spring, 1800 to present, Includes readings, reports, notated and recorded examples of all periods of western cultures.

313. Great Composers. (A,S) Fall (2) Mr. Truesdell.

Major composers and works representative of various styles will be studied. The course is conducted on an intermediate level, and is not open to Music concentrators.

314. The Symphony. (A,S) Spring (2) Mr. Truesdell.

A study of representative symphonic works of various points; their style, form and orchestral setting. The course is conducted on an intermediate level, and is not open to Music concentrators.

315, 316. Opera. (A,S) Fall and Spring (2, 2) Mr. Truesdell.

Plots, music, background of selected masterpieces from the standard operatic repetoire. Fall: Italian bel canto and French Grand Opera. Spring: German Romantic Opera, Wagner, Strauss, Nationalists, and Modern developments. Not open to Music concentrators. (Not offered 1974-75)

*318. American Musical Theatre. Spring (3) Messrs, Paledes and Scammon.

A study of American operetta and musical comedy from the Colonial period to the present. Representative works from various periods will be studied with respect to their musical and dramatic styles. Students will be required to prepare excerpts for class performance and analysis. Same as Theatre 330.

‡413, 414. Problems in Music. Fall or Spring (2-3, 2-3) Staff. For seniors only.

Directed independent study resulting in a thesis.

MUSIC EDUCATION

320. Music for Elementary School Teachers. Fall and Spring (3, 3) Mr. Varner.

A course designed for prospective general teachers in the elementary grades. Not open to Music concentrators.

*321. Music in the Elementary School. Fall (3) Mr. Varner.

Problems confronting the teacher of music in the elementary schools, and methods of instruction appropriate to the several grades. Primarily for Music concentrators.

*322. Music in the Secondary School. Spring (3) Mr. Varner.

Materials and methods of instruction on the secondary school level.

*323, 324, 325. Instrumental Techniques, Materials and Methods. Fall or Spring (2, 2, 2) Mr. Varner.

Three courses are assigned, one each to woodwinds, brass, and strings; the development of performance skills and a study of the materials and methods of teaching. Percussion is correlated throughout.

*326. Choral Materials and Procedures. Fall (3) Mr. Paledes. Prerequisite: Music 201-202.

A study of vocal and choral techniques and teaching methods.

*327, 328. Choral and Instrumental Conducting. Fall and Spring (1-2, 1-2) Mr. Paledes and Mr. Varner. Prerequisite: Music 201-202.

Study and practice in the techniques of the baton; problems of organizing musical groups.

‡521, 522. Graduate Seminar in Music. Fall or Spring (2-3, 2-3) Staff.

Directed independent study resulting in a thesis.

APPLIED MUSIC

The College offers individual instruction in Brass, Organ, Piano, Strings, Voice, and Woodwinds.

A maximum of 10 credits may be earned through instruction courses, and a maximum of four credits may be earned through participation in musical organizations. Prerequisite or corequisite for credit in Applied Music is Music 101 or 201-202, etc. No credit in Applied Music is given until this requirement is met. Approval of the Head of the Department is required for all courses and ensembles in Applied Music except auditors in band, orchestra and choral organizations.

Applied Music as an elective earns one credit. Advanced students meeting ex-

ceptional standards and requirements may earn two credits.

Individual instruction in Applied Music is given on the basis of 30-minute private lessons once or twice weekly. Minimum preparation for each 30-minute lesson per week is one hour of daily practice.

NOTE: Additional fees are charged for these lessons. For the amount of these fees, see Applied Music Fees on p. 58.

ENSEMBLE

*131. Band Fall and Spring (1, 1) Mr. Varner *132. Choir Fall and Spring (1, 1) Mr. Lendrim *133. Chorus Fall and Spring (1, 1) Mr. Lendrim *134. Orchestra Fall and Spring (1, 1) Mr. Stewart

MUSIC

INDIVIDUAL INSTRUCTION

- *Vaice 051-451. Mr. Roark.
 - 151. I, II. Elementary Voice. Fall and Spring (1, 1)
 - 251. I, II, III, IV. Intermediate Voice. Fall and Spring (1, 1, 1, 1)
 - 351. I. II, III, IV. Senior Voice. Fall and Spring (1, 1, 1, 1)
 - 451. I, II, III, IV. Advanced Voice. Fall and Spring (1-2, 1-2, 1-2)
- Piano 052-452. Mrs. Knorr, Mrs. Lendvay, Mr. Paledes, Mr. Truesdell, and Miss Vernon.
 - 152. I, II. Elementary Piano. Fall and Spring (1, 1)
 - 252. I, II, III, IV. Intermediate Piana. Fall and Spring (1, 1, 1, 1)
 - 352. I, II. Senior Piano. Fall and Spring (1, 1)
 - 452. I, II, III, IV. Advanced Piana. Fall and Spring (1-2, 1-2, 1-2, 1-2)
- *Organ 153-453. Mr. Darling, Mr. Godshall, and Mrs. Koller.
 - 153. I, II. Elementary Organ. Fall and Spring (1, 1)
 - 253. I, II, III, IV. Intermediate Organ. Fall and Spring (1, 1, 1, 1)
 - 353. I, II. Senior Organ. Fall and Spring (1, 1)
 - 453. I, II, III, IV. Advanced Organ. Fall and Spring (1-2, 1-2, 1-2, 1-2)
- *Strings 154-454. Mr. Stewart.
 - 154. I, II. Elementary Strings, Fall and Spring (1, 1)
 - 254. I, II, III, IV. Intermediate Strings. Fall and Spring (1, 1, 1, 1)
 - 354. I, II. Senior Strings. Fall and Spring (1, 1)
 - 454. I, II, III, IV. Advanced Strings. Fall and Spring (1-2, 1-2, 1-2, 1-2)
- *Woodwinds 155-455. Mr. Varner.
 - 155. I, II. Elementary Woodwinds. Fall and Spring (1, 1)
 - 255. I, II, III, IV. Intermediate Woodwinds. Fall and Spring (1, 1, 1, 1)
 - 355. I, II. Senior Woodwinds. Fall and Spring (1, 1)
 - 455. I, II, III, IV. Advanced Woodwinds. Fall and Spring (1-2, 1-2, 1-2, 1-2)
- *Brass 156-456, Staff,
 - 156. I, II. Elementary Brass. Fall and Spring (1, 1)
 - 256. I, II, III, IV. Intermediate Brass. Fall and Spring (1, 1, 1, 1)
 - 356. I, II. Senior Brass, Fall and Spring (1, 1)
 - 456. 1, II, III, IV. Advanced Brass. Fall and Spring (1-2, 1-2, 1-2, 1-2)

PROFESSORS JONES (Chairman of the Department) and MACDONALD. ASSOCIATE PROFESSORS COBB, FOSTER, FUCHS, HARRIS, MCLANE, and REED. ASSISTANT PROFESSOR BOHL.

The Department agrees substantially with William James in regarding philosophy as a self-conscious pursuit of the aims of a liberal education which develops "The habit of always seeing alternatives, of not taking the usual for granted, of making conventionalities fluid again, of imagining foreign states of mind." Through a varied and extensive program of courses students are confronted with past and present attempts to think critically and reflectively about fundamental questions of knowledge and value in order that they will be led to examine their own views.

Two introductory courses are offered, one using a topical and the other an historical approach to the problems of philosophy. A large number of middle-level courses are offered that are intended to meet the needs of students who wish to sequence in philosophy or who wish to take courses that might be particularly relevant to their own field of concentration. Many philosophy courses are particularly suited to the needs of students with Interdisciplinary Concentrations. The department also offers specialized and intensive courses of an historical, methodological, and systematic character for those students who wish to concentrate in philosophy. A concentration may serve as a preparation for graduate study or, as is more usually the case, as a sound foundation for a liberal education.

The study of philosophical problems in the spirit of free inquiry requires the student to develop and exercise the powers of precise discrimination, creative imagination, logical organization, and evaluative judgment. Philosophical inquiry finds its subject-matter wherever men are thinking: in science, in law, in education, in religion.

REQUIREMENTS FOR CONCENTRATION

A student whose aim is to use a concentration in Philosophy as a basis for a liberal education may take the minimum concentration requirement of twenty-seven hours in the Department. Those who wish to prepare for graduate study in philosophy or a related discipline will normally take more than this required minimum. No specific set of courses is prescribed for all concentrators. However, every concentrator should have some acquaintance with the history of philosophy, various types of philosophy, alternative philosophical methodologies, and with advanced analysis of particular philosophers and contemporary philosophical issues. A program for each concentrator will be developed through consultation with members of the philosophy faculty.

DESCRIPTION OF COURSES

101, 102. Introduction to Philosophy. (A) Fall and Spring (3, 3) Staff. One may not receive credit for both Philosophy 101, 102 and 201, 202.

An introduction to the problems, methods and scope of philosophical enquiry. Topics to be studied are selected on the basis of their relevance to other aspects of liberal education as well as for their intrinsic philosophical interest. Examples of such topics are free will and scientific determinism, moral relativism and skepticism, the question of God's existence, the nature and aims of education, and problems of man and society such as civil disobedience and violence.

150. Freshman Seminar. Spring (3) Mr. Harris.

201, 202. The History of Philosophy. (A) Fall and Spring (3, 3) Mr. MacDonald and Staff. One may not receive credit for both Philosophy 101, 102 and 201, 202.

An historical introduction to philosophy based on readings from the works of various philosophers such as Plato, Aristotle, Lucretius, and Aquinas during the first semester; Descartes, Hume, Kant, Mill, and Russell during the second semester.

301. Introduction to Logic. (S) Fall and Spring (3) Mr. Bohl, Mr. Harris, Mr. McLane, and Mrs. Reed.

An introduction to principles of valid reasoning with special emphasis on modern symbolic techniques and their uses.

303. Ethics. (AS) Fall and Spring (3) Mr. Foster, Mr. Harris, and Mr. Jones.

A philosophical examination of problems and theories about such topics as good and evil, right and wrong, pleasure, choice, duty, happiness, and the good life.

304. Aesthetics. (AS) Fall (3) Mr. Foster.

A philosophical analysis of the nature of aesthetic experience and its objects. Special attention will be given to apprehension and judgment, concepts, and criteria, and meaning and truth in the arts.

305. Social and Political Philosophy Ideology. (AS) Fall and Spring (3) Mr. Fuchs and Mr. Harris.

A philosophical examination of major social and political concepts such as authority, justice, law, obligation, and rights. Special attention will be given to the use of these ideas in ideologies such as Communism, Fascism, and Democracy.

306. Philosophical Problems. (AS) Fall (3) Staff. Prerequisites: Two courses in Philosophy. (Not offered 1974-75)

A study of such major philosophical problems as those concerning knowledge and reality, morality and conduct, and art and beauty. Special attention will be devoted to philosophical method.

307. Philosophy of Higher Education. (AS) Spring (3) Staff. (Not offered 1974-75)

A study of the philosophical and ideological foundations of the crisis in higher education. Theories of the university and definitions of "liberal" education will be examined in terms of their presuppositions about the nature of man and society.

311. Philosophy of Religion. (AS) Spring (3) Mrs. Reed.

A philosophical investigation of the nature of religious experience, activity, and belief. The course will also include an examination of such concepts as those of God, freedom, and immortality.

313. Introduction to the Philosophy of Science. (AS) Fall (3) Mr. McLane. (Not offered 1974-75)

A philosophical examination of the nature, validity, and significance of scientific inquiry. Special attention will be given to the descriptive, explanatory, and predictive aspects of scientific theories.

314. Philosophy of the Social Sciences. (S) Spring (3) Mr. Jones.

An examination of theories and methods in the social sciences. A comparison with the natural sciences through consideration of such philosophic topics as the nature of explanation, concept formation, confirmation of theories, the relation of facts to values, the nature of human action, freedom and determinism, and moral issues involved in applied social science.

321. Existentialism. (AS) Fall and Spring (3) Mr. Cobb and Mr. McLane.

An examination of important aspects of existentialism with readings in such philosophers as Kierkegaard, Nietzsche, Jaspers, and Sartre. Some attention will also be given to the impact of these philosophical movements upon contemporary literature, religious thought. and psychology.

322. American Philosophy. (S) Fall (3) Mrs. Reed. Prerequisites: Two courses in Philosophy or consent of the instructor.

A study of readings selected from the works of such philosophers as Edwards, Jefferson, Peirce, Royce, James, Dewey, Santayana, and Whitehead.

323. Indian Philosophy. (S) Fall (3) Mr. Foster. Prerequisites: Two courses in Philosophy or consent of the instructor.

A survey of the major philosophers and systems of thought in South Asia. The cultural, philosophical and religious context is afforded through consideration of the *Upanishads* and *Bhagavad-Gita* and study is devoted to such systems as Jainism, early Buddhism, Samkhya and the Hindu systems of Yoga, Nyaya-Vaisesika, and Vendanta.

324. Oriental Philosophy. (S) Spring (3) Mr. Foster. Prerequisites: Two courses in Philosophy or consent of the instructor.

A survey of the major philosophers and systems of thought in East Asia. Study will be devoted to Confucius, Mo Tzu, Mencius and Taoism and to the development of Mahayanan, Tibetian and Zen Buddhism.

331. Greek Philosophy. (S) Fall (3) Mr. Cobb. Prerequisites: Two courses in Philosophy or consent of the instructor.

A critical examination of representative Greek philosophers with special emphasis on Plato and Aristotle.

332. Medieval Philosophy. (S) Spring (3) Mrs. Reed. Prerequisites: Two courses in Philosophy or consent of the instructor.

Analysis of selected writings of major medieval philosophers such as Augustine, Erigena, Anselm, Maimonides, Bonaventure, Aquinas, Scotus, and Occam.

333. Continental Rationalism. (S) Spring (3) Mr. Foster, Prerequisites: Two courses in Philosophy or consent of the instructor. (Not offered 1974-75)

A critical examination of representative rationalist systems with special emphasis on Descartes, Spinoza, and Leibniz.

334. British Empiricism. (S) Spring (3) Mr. MacDonald. Prerequisites: Two courses in Philosophy or consent of the instructor.

A critical examination of representative theories of empiricism with special emphasis on Locke, Berkelev, and Hume.

336. Contemporary Philosophy. (S) Foll (3) Mr. Bohl. Prerequisites: Two courses in Philosophy or consent of the instructor.

An examination of the major philosophical writings of this century.

342. Philosophy of Language. (S) Spring (3) Mr. Bohl. Prerequisites: Philosophy 336 and two other courses in Philosophy. (Not offered 1974-75)

A survey of recent philosophical questions about language and meaning. Such topics as the following will be considered: reference, analyticity, speech acts, and semantic and syntactic theories. Among the authors that will be read are Russell, Austin, Quine, Chomsky and Katz.

*401. Theory of Knowledge. (S) Spring (3) Mr. MacDonald. (Not offered 1974-75)

An examination of philosophical theories about such topics as the nature and criteria of truth, perception and cognition, meaning, knowledge, and the validation of belief.

*402. Metaphysics. (S) Foll (3) Mr. Jones.

The study of such concepts as those of substance and essence, time and eternity, matter and consciousness, truth, cause, and being. Critical examination of theories about such topics as mechanism and teleology, man and his place in nature, and the relation of the mind to the body.

*403. Advanced Ethics. (S) Fall (3) Mr. Fuchs.

A study of selected normative and critical problems in moral philosophy.

404. Advanced Logic. (S) Spring (3) Mr. McLane. Prerequisite: Philosophy 301 or consent of the instructor.

Systematic investigation of topics in logic drawn from such areas as system construction, proof theory, modal and deontic logic, and abstract set theory.

405. Phenomenology. (S) Spring (3) Mr. Cobb. Prerequisite: Philosophy 321 and three other courses in Philosophy.

A study of phenomenology as a philosophical method. Some attention will be given to the historical development of the method but the emphasis will be on dealing with particular philosophical problems. Readings will include some literary and psychological materials as well as philosophical writings by Husserl, Heidegger, and Merleau-Ponty, especially the latter.

*413. Philosophy of Mind (S) Fall (3) Mr. McLane. (Not offered 1973-74.)

Critical analysis of theories concerning the nature of consciousness, the concept of person and personal identity, and some theories of the relation of the mind to the body. Attention will be devoted to the philosophical relevance of such sciences as psychology, physiology, and cybernetics.

416. Philosophical Problems in Physical Science. (S) Spring (3) Mr. McKnight. Prerequisite: Either Philosophy 301 and Physics 101, 102 or consent of the instructor. (Not offered 1974-75.)

A study of philosophical problems arising in classical physics and relativity and quantum theory. Special attention will be given to such topics as the status of observables, measurement, time, and elementary particles. The philosophical implications of contemporary physics will be discussed. (Same as Physics 416.)

*421. The Philosophy of Kant. (S) Fall (3) Mr. MacDonald.

Intensive study of The Critique of Pure Reason and selections from other writings of Kant.

*422. Great Philosophers. (S) Spring (3) Mr. Bohl.

A systematic study of the thought of a great philosopher such as Plato. Aristotle, Spinoza, Hume, or Wittgenstein. The particular philosopher to be studied is designated each time the course is offered.

Professor of Physics.

‡431, 432. Senior Seminar in Philosophy (S) Spring only (3) Staff.

A meeting of the Faculty of the Department with advanced students for the purpose of philosophical investigation. An important modern philosophical work is examined each semester and students are required to write and present papers for critical discussion.

‡441, 442. Advanced Reading in Philosophy. Fall and Spring (3,3) Staff. Prerequisites: Eight courses in philosophy and consent of the Department.

Individually supervised readings on special topics for advanced students.

HONORS STUDY

‡495, 496. Honors. Fall and Spring (3, 3) Staff.

Students admitted to Honors Study in Philosophy will be enrolled in this course during both semesters of their senior year. The course comprises (a) supervised reading in the field of the student's major interest; (b) the preparation and presentation by May 1 of an Honors Essay; (c) the satisfactory completion of a written comprehensive examination based upon the student's courses of study; (d) the satisfactory performance in an oral examination on the Honors Essay.

Physical Education for Men

PROFESSOR H. SMITH (Chairman of the Department), ASSOCIATE PROFESSORS AGEE. HOOKER, JENSEN, JONES and LINKENAUGER. ASSISTANT PROFESSORS ALBERT, DERRINGE and HAYNIE. INSTRUCTORS BERRYHILL, RANDOLPH AND STEERS.

REQUIREMENTS FOR CONCENTRATION

The minimum number of semester credits required for concentration in Physical Education is 34 and must include Physical Education 203, 308, 310, 313, 408, 411, 413, 494, Biology 307 and 308 and any two of the following 316, 317, 412. All courses except Physical Education 203 and 208 of the concentration program should be taken during the student's junior and senior years.

Those students desiring to meet the professional requirements for certification in the State of Virginia must plan their programs with Mr. Linkenauger—major advisor. Students enrolling in professional courses to meet certification requirements in other states should first consult a member of the faculty of the School of Education.

Students who meet professional requirements for certification in the State of Virginia are qualified for a number of positions: teaching Physical Education in a consolidated school or a large secondary school; teaching Physical Education and a second subject in a small secondary school; coaching and directing athletics combined with the teaching of another subject or subjects; supervising physical education and recreation programs; summer camp work; and preparation for graduate study in Physical Education, Physical Therapy or Corrective Therapy.

PROGRAM FOR ADVANCED STUDY

Students who are qualified for advanced study and who have satisfied admission requirements may register for the Master of Arts Degree with concentration in Physical Education or for the degree of Master of Education with emphasis in Education and Physical Education as a related field. A minimum residence period of one regular session or of four summer sessions is required.

In addition to the general requirements for admission established by the College, students desiring to enter upon graduate study in Physical Education should present satisfactory undergraduate work in Physical Education or related fields, from a recognized institution.

A minimum of 15 credits of the total 30 submitted for the Master of Arts degree must be in the department of concentration. Other courses should be selected from related departments such as Education, Sociology and Biology, or selected from additional courses in Physical Education. For special requirements of the M.Ed. degree, write to the Dean of the School of Education.

DESCRIPTION OF COURSES

Students concentrating in other departments may elect physical education courses according to interest or to prepare for teaching combinations, recreation work, or other related fields.

101, 102, 201, 202. Required Physical Education. Fall and Spring (1, 1) Staff.

There shall be no physical education requirement for students who demonstrate skills in four activities, one of which must be swimming. Other students are to complete as many as four semesters in a program of physical activity, depending on the number of skills on which they have earned exemptions. These requirements may be satisfied by electing an activity course offered by the Men's Department of Physical Education, by participating for a season in a varsity sport, or by passing one of the skills tests offered. Before completing four semesters, students are to demonstrate survival swimming skills unless medically excused.

PHYSICAL EDUCATION FOR MEN

Students with physical disabilities will be assigned to a special adapted sports class on the recommendation of the College physician. Instruction is given in the following individual and group activities: advanced swimming and life saving, beginning swimming, badminton, baskethall, fencing, golf, gymnastics, handball, lacrosse, soccer, scuba diving, tennis, track and field, volleyball, and wrestling.

203. Physical Education and Recreation for the Classroom Teacher. Fall (3) Mr. Agee.

Special emphasis given the role of motivation, skill transfer and retention as applied to physical education. Course primarily designed to emphasize fundamentals of basic skills, physical fitness testing, and individual and team activities on the elementary school level.

208. First Aid and Safety. Spring (3) Mr. Jensen.

Instruction focuses on the Standard and Advanced Red Cross First Aid. Safety projects, problems, and the organization of materials, methods and techniques are developed. Lectures and laboratories four hours.

308. Applied Anatomy and Kinesiology. Fall (3) Mr. Linkenauger. Prerequisite: Biol. 308.

A study of the principles of human motion. Anatomical and mechanical analysis of individual skills in physical education activities is stressed.

309. Driver Education. Fall or Spring (3) Mr. Jones.

Critical analysis of traffic accidents attitude factors, and essential knowledges are developed. The laboratory phase will include the use of psychophysical and psychological tests and actual practice-teaching behind the wheel. Lectures and laboratories four hours.

310. History and Principles of Physical Education. Fall (3) Mr. Jensen.

This course is an orientation in the history and principles of physical education, health, and recreation.

313. Advanced Gymnastics and Track & Field. Spring (2) Mr. Haynie and Mr. Besnier.

A detailed study and development of demonstrable skills with considerable emphasis on exhibition planning and coaching techniques in the course design. Lectures and laboratories four hours.

316. Advanced Baseball, Wrestling. Spring (2) Mr. Jones and Mr. Steers.

This course is structured so as to give special attention to the approved scientific techniques of coaching and the students' acquisition of advanced demonstrable skills. Lectures and loboratories four hours.

317. Theory and Practice of Coaching Soccer and Lacrosse. Fall (2) Mr. Albert. Lecture and laboratories four hours.

A detailed study of the advanced basic skill techniques and coaching methods utilized in Soccer and Lacrosse.

318. Sports Officiating. Fall and Spring (2) Mr. Jones.

A survey and critical analysis of the rules and officiating techniques of team and individual events. A minimum of twelve contact hours of supervised intramural, officiating is required. Lectures and laboratories four hours.

¹ While this course may be taken to fulfill the requirement for Virginia State certification in Driver Education, it may not be counted toward meeting requirements for the A.B. or B.S. degree.

PHYSICAL EDUCATION FOR MEN

321. Foundations of Health Education. Fall and Spring [3] Mr. Smith.

An advanced course which develops instructional competencies with special emphasis on the historical as well as the most recent health facts, principles and concepts. A survey is made of the many Virginia State Dept. publications and other resource materials.

400. Senior Seminar. As required (3) Staff.

Discussion by the faculty and advanced students of contemporary problems in physical education. Students will write and present papers for critical discussion. Guest lecturers will occasionally present seminars.

408. Organization and Administration of Health and Physical Education Programs. Spring (3) Mr. Smith.

This course provides counsel on organizational and administrative policies and procedures for physical education, health, and intramural programs in the public schools.

409. Organization and Administration of Community Recreation Programs, Fall (2) Mr. Haynie.

This course is concerned with the administrative and legal aspects of local, state and federal recreation programs.

411. Therapeutic Physical Education. Fall (3) Mr. Smith and Mr. Linkenauger. Prerequisite: Biology 308.

Basic concepts examined in this course include physical examination procedures with an emphasis on normal and faulty postural conditions. Special attention is given to remedial and adaptive exercises and activities. Physical and corrective therapy techniques and procedures are studied.

412. Advanced Football and Basketball. Fall or Spring (2) Mr. Agee.

A detailed study and development of advanced demonstrable skills with special emphasis on coaching techniques is the purpose of this course. Lecture and laboratories four hours.

413. Advanced Tennis and Golf. Fall or Spring (2) Mr. Agee.

This is a course to further develop the students' competencies and demonstrable skills with emphasis on coaching procedures and tournament management. Lecture and laboratories four hours.

414. Advanced Swimming and Rhythmics. As required (2) Mr. Haynie.

This course is an intensive study of the coaching methods and teaching techniques plus the acquisition of advanced demonstrable skills in both areas of activity. Lectures and laboratories four hours.

415, 416. Student Teaching. Fall and Spring (3) Mr. Smith. Prerequisites: Senior Standing, twenty-four credits in Education and Physical Education.

This course involves daily observation and teaching in a public school system with weekly conferences, special assignments and reports. Lectures and laboratory five hours.

492. Physiology Activity. Spring (3) Mr. Linkenauger. Prerequisite: Biol. 307, 308.

An in depth study is made of the physiological aspects of exercise, fatigue, coordination, training and growth; functional tests with normal and abnormal subjects; investigations and independent readings.

PHYSICAL EDUCATION FOR MEN

493. Philosophy and Literature in Health, Physical Education and Recreation. As Required (3) Mr. Jones.

Extensive readings, discussions and evaluations of historical and current philosophies and practices are made. Educational implications of problems facing the separate fields are analyzed.

494. Test and Measurements in Health, Physical Education and Recreation. Fall~(3) Mr. Jones.

Evaluation techniques are studied with emphasis placed on tests of physical fitness, sports ability, body mechanics, growth, and written health tests. Statistical informance theories are analyzed.

495. Physical Modalities and Rehabilitation Techniques. Fall (3) Mr. Linkenauger. Prerequisite Biology 307, 308.

A detailed inquiry into modalities currently employed in physical therapy and rehabilitation.

496. Health Coordination. As Required (3) Mr. Smith.

A comprehensive study is made of the factors of school and community activities related to health. Relationships of the service, instructional, protective, and guidance phases in the health program are identified.

502. Problems and Research in Health, Physical Education and Recreation. As required (3) Mr. Smith. Prerequisite: Physical Education 494 or the equivalent.

This course includes the application of various methods and statistics as most commonly used in physical education research. Limited research studies and problems are conducted in the three areas.

503. Seminar in Advanced Techniques in Sports. As Required (3) Staff.

Seminar is devoted to the designing of offensive and defensive plays, types of strategy, instruction of players, and crowd control problems.

506. Administration and Supervision in Physical Education, Health and Recreation. As Required (3) Mr. Smith.

Study is given to administrative management and supervision in all three areas, modification of programs to fit the facilities available, curriculum planning, grading procedures and techniques of instruction.

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Physical Education for Women

ASSOCIATE PROFESSORS WEST (Chairman of the Department), ARCHER, BROWN, CROWE, ROBY and SHERMAN. ASSISTANT PROFESSORS JACKSON, LAMBERT, and TOMLINSON, COLLEGE PHYSICIAN CILLEY.

The physical education requirement will be waived for students who demonstrate high intermediate skills in four activities, one of which must be swimming. Opportunities to demonstrate these skills are offered in the fall and spring of each academic year. Other students are to complete as many as four semesters in a program of physical activity, depending on the number of skills in which they have earned exemptions. These requirements may be satisfied by electing an activity course offered by the Department of Physical Education, by participating for a season in a varsity sport, or by passing one of the skills tests offered. Before completing four semesters, students are to demonstrate survival swimming skills unless medically excused.

DESCRIPTION OF COURSES

101. Team Sports. Fall and Spring (1) Miss Archer, Miss Crowe.

Seasonal activities: hockey, basketball, volleyball, soccer, and lacrosse. Two double periods weekly.

102. Dance. Foll and Spring (1) Miss Roby, and Mrs. Sherman.

Fundamentals of modern dance. Two double periods.

‡145, 146. Adapted Activities. Foll and Spring (1) Mrs. West.

Upon recommendation of the head of the Department and the College physicians, these courses may be substituted for regular classes.

‡195, 196. Selected Sports and Dance Activities. Fall and Spring (1) Mrs. West.

Upon recommendation of the head of the Department, these courses (designed for proficient students) may be substituted for regular classes.

201. Swimming. Fall and Spring (1) Miss Crowe, Miss Lambert, Miss Tomlinson, and Mrs. West.

Safety skills, standard swimming strokes, diving, and life saving techniques are offered. Two double periods.

202. Individual Sports. Fall and Spring (1) Miss Archer, Miss Crowe, Miss Lambert, Miss Tomlinson, and Mrs. West.

Seasonal activities: aerobics, archery, backpacking, badminton, body mechanics, bowling, 'canoeing, fencing, golf, gymnastics, karate,' judo,' techniques of self defense,' tennis, and track and field. Two double periods.

ELECTIVE COURSES IN PHYSICAL EDUCATION FOR WOMEN

The following courses are intended to supplement the four semesters of required physical education and may be elected for academic credit. These courses are open to juniors and seniors, and may be elected concurrently with a required class by sophomores. Freshmen may elect these courses in addition to required work with permission of the head of the Department.

^{&#}x27;Fees are charged for these courses.

PHYSICAL EDUCATION FOR WOMEN

302. Waterfront Leadership. Spring (2) Mrs. West and Miss Lambert. Prerequisite: Senior Life Saving.

Especially designed for students who wish to do camp and playground work and includes Instructor's courses of the American Red Cross. Four closs and laboratory hours.

307. Physical Education for the Elementary Classroom Teacher, K-6. Spring (3) Crowe.

Includes methods and materials for teaching Physical Education to elementary school children. Emphasis is on basic understanding of movement patterns which underlie all skills, body awareness, and motor development. Laboratory hours include teaching physical education classes in elementary school. Four class and laboratory hours.

ELECTIVE COURSES IN DANCE

These courses supplement the required courses in Physical Education and may be elected for academic credit by men and women with the consent of the instructor. Certain of these courses may be elected to fulfill area and sequence requirements under Area I. Courses may also be taken to form an interdisciplinary concentration in Dance and a related field or fields.

DESCRIPTION OF COURSES

TECHNIQUE. These courses are designed to develop an understanding of movement as an art form and means of expression, beginning with movement fundamentals and continuing through longer and more complex phases with emphasis on performance. Students will be assigned to the course for which they are qualified on the basis of previous background and demonstrated ability. A maximum of 12 credit hours may be earned in Technique.

- 111, 112. Elementary Modern Dance Technique. Foll and Spring (2, 2) Staff. Four studio hours.
- 211, 212. Intermediate Modern Dance Technique. Foll and Spring (2, 2) Staff. Four studio hours.
- 311, 312. Advanced Modern Dance Technique. (S) Foll and Spring (2, 2) Staff. Four studio hours.
 - 220. Introduction to Contemporary Dance. (AS) Fall (2) Mrs. Sherman.

An introduction to the field of Modern Dance with emphasis on the stylistic approach and aesthetic of the artists who have contributed to its development in the twentieth century. Two class hours.

305, 306. Dance Composition. (AS) Fall and Spring (2, 2) Miss Roby. Prerequisite: Physical Education 102.

First Semester: An introduction to the elements, materials and structure of a dance composition. Four class and laboratory hours.

Second Semester: Composition of dance etudes; form and style related to other modern arts. Four class and laboratory hours.

406. Problems in Dance. (S) Spring (3) Miss Roby and Mrs. Sherman.

Directed study in a special area for the advanced student arranged on an individual basis. The course would include a substantial choreographic project or a research

PHYSICAL EDUCATION FOR WOMEN

project for a student with special interest and ability in a related field, such as music, theatre, or fine arts.

WOMEN'S SPORTS

Recreational activities are conducted under the auspices of the Women's Recreation Association, with executive power assigned to a committee of faculty and students. (See page 43.)



Physics

ASSOCIATE PROFESSOR VON BAEYER (Chairman of the Department), PROFESSORS CROWNFIELD, ECKHAUSE, FUNSTEN, McKNIGHT, SCHONE, SHER, SIEGEL, WELSH and WINTER. ADJUNCT PROFESSORS LAWRENCE and ORTEGA. ASSOCIATE PROFESSORS CHAMPION, DOVERSPIKE, GROSS, KANE, KOSSLER, PERDRISAT, REMLER and SOEST. ASSISTANT PROFESSORS CARLSON, DELOS, GARY, PETZINGER and VAHALA. RESEARCH ASSISTANT PROFESSOR PARK. ADJUNCT ASSISTANT PROFESSOR REMSBERG. RESEARCH ASSOCIATES COX, RUSHTON and SATHE. LECTURER JOLLY. RESEARCH ENGINEER HUMMEL.

PROGRAM

Traditionally, many physics undergraduates continue in graduate school in pursuit of Ph.D. degrees. However, students who complete a physics concentration also enter a variety of other fields, including among many others archeology, biology, mathematics, law, medicine, environmental sciences, operations research, technical sales, industrial management, engineering, and oceanography. Undergraduate work in physics followed by specialization in other areas has become one of the preferred preparations for many activities that are setting new directions in our changing world because physicists are scientific generalists. The requirements for concentration in physics are deliberately flexible, and are designed to prepare people for either graduate work in physics or for later specialization in other areas.

A minimum of 30 credits, including not more than eight in 100-level courses and not more than three courses numbered 416-22, is required for a concentration in physics. Either physics 451-452 or physics 495-496 must be completed, so that all majors engage in independent research during their senior year. Because of the extensive facilities available through the graduate program of the department, the senior projects generally deal with problems at the frontiers of physics. It is only through being actively involved in such pursuits that a student can appreciate the nature of the discipline.

Students who want to become physicists should be prepared in such a way that they can succeed in the best graduate schools. The following statements are advice appropriate to such students:

Physics 101-102 and calculus should be taken during their freshman year.

Physics 201-202 and 251-252 should be included in the sophomore year.

Physics 301-302, 311, 312, 401 and selections from 351-352, 402, 411-412, 475, 481 and 482 should be completed during the junior and senior years.

Suitable mathematics courses should also be included.

Those seeking a less detailed preparation should include 301 but consider taking 260 rather than 401, and 304 rather than 311.

Courses on special topics in physics are offered as Freshman Seminars.

DESCRIPTION OF COURSES

101-102. General Physics. (A) Fall and Spring (4, 4) Mr. Welsh, Mr. Garv, and Staff.

This course is designed to develop an understanding of the fundamental concepts of physics. Emphasis is placed upon Newtonian mechanics, electricity and magnetism and modern physics: current research and applications are discussed. Designed for students who are considering concentrating in one of the sciences or mathematics. Concurrent registration in calculus is recommended. Honors sections are open to students that have a good preparation for and a strong interest in physics. Lectures, discussions, and laboratory six and one-half hours.

103-104. Elementary Physics. (A) Fall and Spring (4, 4) Mr. Soest and Staff.

A beginning course of college physics satisfying the area requirements in the field of science. Designed for the non-science concentrator, this course examines how science shapes the world and our vision of the world. Mechanics, light, and electricity, including lasers, electronic instruments, and other devices in the first semester. In-

PHYSICS

troduction to relativity, quantum phenomena, and new ideas about atoms and particles in the second semester. Lectures, discussions, and laboratory six and one-half hours.

121. Physics of Music. (A) Foll and Spring (3) Mr. Perdrisat.

Basic concepts of physics, particularly acoustics, needed for an understanding of the properties of sound and music. The course will be in the form of a workshop—students will participate in the performance of experiments which illustrate the ideas. Lecture and laboratory three hours.

150. Freshman Seminar.

175. Development of Physics and Cosmology. (A) Fall (3). Mr. McKnight.

The evolution of ideas on the structure of the universe with particular attention to the scientific revolutions from the time of the Renaissance to Einstein. Critical study of the role of imagination, observation, and prediction in the development of physical theories. Examination of the interplay between physical theories and contemporary society.

176. Introductory Astronomy. (A) Fall and Spring (3) Mr. von Baeyer.

Descriptive study of the solar system; theories of the origin of the solar system. Star classification; descriptive studies of star clusters and galaxies. Recent developments such as quasars, pulsars, neutrino astronomy and radio astronomy. Current theories of the origin of the universe.

201-202. Intermediate Physics. (S) Fall and Spring (3, 3) Mr. Delos. Prerequisite: two semesters each in physics and calculus. Corequisite: Physics 251-252.

Relativity and the development of quantum ideas, waves and optics.

203. Modern Physics. (S) Fall (4). Prerequisite: two semesters of physics and one semester of calculus.

Review of classical physics; relativity, introduction to quantum physics, recent developments in physics. This course is designed for prospective secondary school teachers and may not count for concentration in physics. Lectures and laboratory six hours. (Not offered in 1974-75.)

204. Optics and Other Wave Phenomena. (S) Foll (4). Prerequisite: two semesters of physics and one semester of calculus.

Applications of Snell's law; optical instruments, photography, interference phenomena, lasers. This course is designed for prospective secondary school teachers and may not count for concentration in physics. Lectures and laboratory six hours. (Not offered in 1974-75.)

251-252. Intermediate Experimental Physics. Fall and Spring (1,1) Mr. Kossler and Staff. Corequisite: Physics 201-202.

Experiments in atomic, nuclear and solid state physics, geometrical and physical optics, interference and diffraction phenomena and atomic spectra. Laboratory three hours.

Physics 260. Introduction to Electronics. (S) Spring (3) Mr. Soest. Prerequisite: Physics 103-104 or 101-102.

Principles of transistors, electronics, and computer circuitry. The laboratory will study electrical measurements and simple circuit construction, leading up to the solid state digital circuits from which modern electronic instruments and computers are made. May not be counted for concentration in physics by students who take Physics 401. Lecture two hours; laboratory two hours.

265. Topics in Physics Relating to Environmental Problems. (S) Fall (3) Mr. McKnight, Prerequisite: Physics 101-102 or 103-104.

An investigation of the physical phenomena associated with current environmental problems; descriptive and quantitative analyses of such problems as energy generation and usage, atmospheric pollution, water pollution and transportation. May not count toward concentration in physics.

301-302. Classical Mechanics. Fall and Spring (3, 3) Mr. Petzinger. Prerequisite: Physics 201-202.

Plane mechanics, mechanics in three dimensions, Lagrangian and Hamiltonian mechanics, special relativity and the mechanics of continuous media.

304. Contemporary Physics. Spring (3). Mr. Kane. Prerequisite: Physics 201-202 or consent of instructor.

A study of the principles and concepts relevant to problems selected from the fields of solid state, atomic physics, nuclear, elementary particle and plasma physics.

311. Introductory Quantum Physics. Fall (3) Mr. Kossler. Prerequisite: Physics 201-202.

Atomic, nuclear and solid state physics.

312. Thermodynamics and Introduction to Statistical Mechanics. Spring (3) Mr. Remler. Prerequisite: Physics 201-202.

The principles of thermodynamics, kinetic theory of gases, and elementary statistical mechanics.

351-352. Experimental Physics. Fall and Spring (1, 1) Mr. Funsten and Staff.

Introduction to the techniques of experimental research. Circuit theory, electronics, thermometry, vacuum techniques and photon and particle detection. Design and construction of experiments. Evaluation and analysis of experimental results. Laboratory three hours.

401-402. Electricity and Magnetism. Fall and Spring (3, 3) Mr. Welsh. Prerequisite: Physics 301.

Development of the theory of electricity and magnetism from fundamental principles. Maxwell's equation, electromagnetic waves and radiation.

411-412. Quantum Physics. Fall and Spring (3, 3) Mr. Winter. Prerequisite: Physics 301, 302 and 311.

The quantum theory in its application to atomic, solid state and nuclear physics.

416. Philosophical Problems in Physical Science. Spring (3) Mr. McKnight. Prerequisites: Two courses in physics or philosophy.

A study of philosophical problems arising in experiment and theory in classical physics, quantum theory and relativity as to the status of observables, measurements, time and elementary particles. Philosophical implications of contemporary physics. (Same as Philosophy 416.)

417. History of Physical Science: Its Origins, Sixth Century B.C. through the Renaissance. Fall (3) Mr. McKnight.

A study of the Greek and Hellenistic endeavors to explain observed physical phenomena, of Arab Science in the Middle Ages, of the revival of academic science during the rise of the European Universities, and of the Renaissance beginnings of modern physics and astronomy. (Same as History 481.) (Not offered in 1974-75).

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418. History of Physical Science: The Classical Period, 1687-1900. Spring [3] Mr McKnight.

A study of the development of the physical sciences after the publication of Newton's Principia. Emphasis will be placed on influences acting on and within the scientific community, on the impact of science on the institutions of society, and on the interrelations between the development of science and that of mathematics and philosophy. (Same as History 482.) (Not offered in 1974-75).

421-422. Law, Energy and the Environment. Fall and Spring (3, 3) Mr. Champion and Mr. Whitney. Prerequisites: One year of college science and consent of instructor.

The U.S. environmental reform establishment; energy and thermodynamics; selected environmental reform legislation; the scientific and legal problems associated with nuclear power; atmospheric physics. The inadequacy of traditional common law remedies to reform the environment; anatomy of an environmental lawsuit; alternate energy sources; energy use patterns; environmental planning; legal and technical aspects of solid waste and resource recovery, pesticides, and noise. (This course is the same as Law 524. Undergraduates must take the course as Physics 421-422.)

451-452. Physics Research. Fall and Spring (1-3, 1-3) Mr. Schone and Staff.

Independent study consisting of both bibliographic and experimental research.

475. Introduction to Mathematical Physics. Fall (3).

Vector analysis, complex variables, matrices, series solutions of differential equations, orthogonal functions and partial differential equations. This course does not carry undergraduate credit in Physics.

- **481.** Topics in Physics. Fall (3) (to be arranged) Staff.
- 482. Topics in Physics. Spring (to be arranged) Staff.
- 495-496. Honors. Fall and Spring (3, 3) Staff.

Students admitted to Honors Study in Physics will be enrolled in this course during both semesters of their senior year. Each candidate will be responsible for (a) reading and discussion of a selected list of books in some specific area of the literature of physics; (b) the preparation and presentation by May 1 of an Honors Essay based on his own research or his part of a major research project; (c) satisfactory completion of a comprehensive examination in the field of the student's major interest.

GRADUATE PROGRAM

The department offers the degrees of Master of Arts, Master of Science, and Doctor of Philosophy. For degree requirements, and a full description of graduate courses in physics, write to the department chairman for a Graduate Catalog. Attention is also called to the Graduate Program in Applied Science on p. 181.

PROJECT PLUS

PROFESSOR BEYER (Director)

Project PLUS is an academic and residential program in which all of the 84 participating students, resident in the Project building, take part of their academic work together. The Forum and the ten tutorials offered for the 1974–75 session all center on the theme selected for this year "The State of the American Dream." While the Forum provides a comprehensive and integrative approach to the theme, the tutorials deal with subordinate topics. They are all interdisciplinary in character.

Each student registers each semester in the single weekly Forum and in one tutorial thereby earning four elective credits for this combined enrollment. Students are graded by their instructors on a Pass/Fair basis. A junior or a senior by his enrollment in Project PLUS will thereby utilize the Pass/Fail option available to him as a junior or a senior whichever the case may be. A sophomore enrolled in Project PLUS will continue to have the option of taking two courses on a Pass/No Credit basis when he

becomes a junior and a senior.

The instructors teaching the tutorials are drawn from the different departments. Because the nature of Project PLUS requires flexibility at the advanced planning stages, it is not possible to include here a complete list of the instructors nor a list of

the tutorial topics that will be offered.

For the 1973–74 session the theme was "Conflict and Conflict Resolution." The variety of topics treated in the 20 different tutorials that supported the theme is suggested by the following random selection from their titles: "The Anthropology of War and Peace," "Conflict and its Resolution in Literature," "Game Theory," "Justice and the Resolution of Conflict," "International Dispute Settlement," "The Varieties of Conflict in Education," "Civil-Military Conflict," "Dehumanization and Conflict."

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201, 202 Forum on the State of the American Dream, Mr. Fehrenbach, Coordinator
201T-1 Tutorial Fall (4) Mr. Barry
        Tutorial Fall (4) Mr. Winter
201T-2
201T-3 Tutorial Fall (4) Ms. Ewell
201T-4 Tutorial Fall (4) Mr. Losito & Mr. Unger
201T-5 Tutorial Fall (4) Ms. Marion Brown
201T-6 Tutorial Fall (4) Mr. Bohl
201T-7 Tutorial Fall (4) Mr. Wenska
201T-8 Tutorial Fall (4) TBA
201T-9 Tutorial Fall (4) TBA
201T-10 Tutorial Fall (4) TBA
202T-1 Tutorial Spring Mr. Barry
202T-2 Tutorial Spring Mr. Crownfield
202T-3 Tutorial Spring Mr. Crapol
202T-4 Tutorial Spring TBA
202T-5 Tutorial Spring Mr. Roger Smith202T-6 Spring Mr. Fuchs
202T-7 Tutorial Spring Mr. Robert Greene
202T-8 Tutorial Spring TBA
202T-9 Tutorial Spring TBA
202T-10 Tutorial Spring TBA
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^{*} For information on general objectives, admissions policies, etc., see pages 36 and 64. Brochures are available on request from the Director of Honors and Experimental Programs.

Psychology

PROFESSORS WILLIAMS (Chairman of the Department), CHAMBERS, DERKS', FRIEDMAN, HARCUM, JOHNSTON, and McKENNA. ASSOCIATE PROFESSORS ROSEN, SHAVER, SHEAN*. ASSISTANT PROFESSORS NULL, PAYNE, VENTIS. ASSISTANT INSTRUCTOR BOGART, LECTURERS HAMMACK, SCHMIDT, BLOCH.

REQUIREMENTS FOR CONCENTRATION

Degree of Bachelor of Arts: A minimum of 27 credits in the Department is required for concentration in psychology including 301 and 331. All students preparing for graduate study in psychology, whether or not they are concentrators, are advised to take experimental psychology with laboratory (301, 302.) and psychological statistics and some courses in theory appropriate to their interest.

Degree of Bachelor of Science: Concentration requirements for the B.S. are those listed above for the A.B. but, in addition the student must meet area requirements for

the B.S. degree (page 60). The preferred science is Biology.

Normal Program Recommended for Concentration: Psychology 201 and/or 202, 331, 301, 302, 400-level courses in systematics or theory.

DESCRIPTION OF COURSES

201. Principles of Psychology. (A) Fall (3) Mr. Harcum, Mr. Friedman and Staff.

A study of basic principles of behavior; sensation and perception, conditioning and learning, drives and motivation, response mechanisms and cognitive processes. Two class hours, two laboratory-discussion hours, or three hours lecture.

202. Principles of Psychology. (A) Spring (3) Mr. McKenna, Mr. Shaver, Mr. Johnston.

An examination of basic concepts in abnormal, developmental, personality and social psychology: normality and deviation, behavior modification, identification, stages of development, personality traits, motives, attitudes and social perceptions. Two class hours, two laboratory-discussion hours, or three hours lecture.

*211, 212. Introductory Research Seminar. Fall and Spring (1, 1) Mr. McKenna, Ms. Null.

Taken with 201, 202 by selected students interested in extra study and independent scholarship. Enrollment by invitation only. Hours to be arranged.

301. Experimental Psychology: Methods. (A,S) *Fall and Spring* (4, 4) Mr. Friedman, Mr. Harcum, and Ms. Null. Prerequisite: Psychology 331.

An introduction to experimental research with emphasis upon the methods by which psychological data are obtained. Three class hours, three laboratory hours.

302. Experimental Psychology: Topics. (A.S) Fall and Spring (4, 4) Mr. Friedman. Mr. Shaver, Mr. Ventis and Staff. Prerequisite: Psychology 301.

Application of the experimental methods in the various topical areas of psychology. Three class hours, three laboratory hours.

Fall Semester

Learning and Cognition. Staff.

Spring Semester

Comparative. Mr. Friedman.

Social. Mr. Shaver. Prerequisite: Psychology 416 or Sociology 350.

¹ On leave of absence first semester 1974-75

² On leave of absence second semester 1974-75

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Behavior Modification. Mr. Ventis. Prerequisite: Psychology 405. 303. Industrial and Applied Psychology (A,S) Spring (3) Mr. Williams.

Psychology applied to industrial and military organizations. Uses of psychological tests in selecting and classifying personnel; methods of efficient work; the design of machines and communication systems for human use; industrial training.

310. History of Psychology (A,S) Fall (3) Mr. Williams.

From Aristotle to 1940 with special emphasis on the 19th and 20th century. The rise of the major schools of thought: Structuralism, Functionalism, Gestalt psychology, Psychoanalysis and Behaviorism.

331. Statistics and Measurement. Fall and Spring (3) Mr. Friedman, Ms. Rosen, Mr. Johnston, Ms. Null.

An introduction to statistics, both descriptive and inferential, including non-parametric tests of significance and simple correlation. Basic principles of psychophysics, psychometric functions and test theory. A brief introduction to hypothesis testing and decision theory. Two class hours, two laboratory hours.

ADVANCED COURSES

Prerequisites: 201 and/or 202 or permission of instructor.

403. Systematic Psychology: Theories of Learning and Perception. (A,S) Spring (3) Mr. Derks.

A survey of contemporary theory in the field with emphasis on its empirical foundations and future possibilities.

404. Physiological Psychology (A,S) Fall (3, 4) Ms. Rosen

Physiological basis of behavior with emphasis on mechanisms in perception, learning, emotion and motivation. Students may elect to take laboratory which is designed to provide experience in the techniques of physiological psychology. Three class hours or three class hours and two laboratory hours.

405. Abnormal Psychology (A,S) Fall, Spring (3) Mr. Payne and Staff.

A survey of behavior pathology including the neuroses and psychoses and their relationship to current conceptions of normal personality. A smaller class, providing a more intensive examination of these issues is offered in Spring primarily for concentrators.

407. Motivation and Emotion. (A,S) Spring (3) Mr. Johnston.

Theories and facts of motivation and emotion and consideration of their differences.

410. Systematic Psychology: Theories of Personality. (A,S) Fall (3) Mr. McKenna, Mr. Johnston.

A survey of contemporary theory in the field with emphasis on its empirical foundations and future possibilities.

*412, 413. Advanced General Psychology. Fall and Spring (3, 3) Staff and Mr. McKenna.

An intensive review of the general principles of psychology as taught in 201, 202. Two class hours, two laboratory hours.

414. Educational Psychology. (A,S) Fall (3) Mr. Ventis, Mr. Harcum.

Individual differences in learning, growth and development in the context of psychological methods and educational aims. Students who have completed Education

PSYCHOLOGY

301 and desire to enroll in Psychology 414, and students who desire to enroll in Psychology 404 concurrently with Education 301, must have the written permission of the instructor of Psychology 414 in order to receive credit for that course.

415. Individual Differences and Testing. Spring (3) Ms. Null.

An introduction to traditional and contemporary theory and methods in the measurement of individual differences. *Prerequisite: Psychology 331.*

416. Social Psychology. (A,S) Fall (3) Mr. Shaver.

The effect of social context on the behavior of the individual, with emphasis on prominent theories and research. Topics include social perception, attitude organization and change, social comparison, the social consequences of individual motives, interpersonal influence, and the application of social psychology to contemporary social issues.

417. Developmental Psychology. (A,S) Fall and Spring Staff.

A study of human development from birth to maturity, with emphasis on physiological, social, emotional and intellectual processes. Both factual and theoretical approaches are considered. A smaller class, providing a more intensive examination of these issues is offered in Fall primarily for concentrators. Students who have completed Education 302 and desire to enroll in Psychology 417, and students who desire to enroll in Psychology 417 concurrently with Education 302, must have the written permission of the instructor of Psychology 417 in order to receive credit for that course.

*419. Topics in Psychology. Fall and Spring (3) Mr. Bloch, Mr. Chambers, Ms. Rosen, Mr. Williams and Staff.

Courses concerning special topics not covered in detail in regular course offerings. Course may be repeated; contents will vary but the credit each time is the same, three hours. Topics presented in 1974-75 are:

Fall Semester

Day Care Center for Preschool Children. Staff.
Experimental Psychopathology. Mr. Bloch.
Computer Applications in Psychology. Mr. Chambers.
Man and Aggression. Mr. Williams

Spring Semester

Day Care Center for Preschool Children. Staff. Sexuality. Ms. Rosen.

*420. Seminar. Fall and Spring (3) Mr. McKenna, Mr. Shaver, Mr. Bloch, and Staff.

Special topics of interest to staff and students will be discussed in seminar fashion. Course may be repeated; contents will vary but the credit each time is the same, three hours. Seminar topics for 1974-75 are:

Fall Semester

Existential and Phenomenological Psychology. Mr. McKenna. Social Psychology and the Law. Mr. Shaver.

Spring Semester

Human Psychophysiology. Mr. Bloch. Seminar in Child Development. Staff. Seminar in Advanced Abnormal Psychology. Staff.

*421. Research. Fall and Spring (TBA) Staff; Mr. Shaver and Staff.

Individually supervised empirical investigations in the various areas of psychology. A student must have permission of a faculty supervisor before registering. Course

PSYCHOLOGY

may be repeated, contents and credit each time may vary according to an agreement reached between instructor and student before the course begins.

*422. Directed Readings in Psychology. Fall and Spring. (TBA) Staff; Mr. Shaver and Staff.

Individually supervised readings on special topics. Usually for advanced students. A student must have permission of a faculty supervisor before registering. Course may be repeated, contents and credit each time may vary according to an agreement reached between instructor and student before the course begins.

431. Quantitative Methods. Spring (3) Ms. Rosen and Staff.

An advanced course in statistics and experimental design. Two class hours, two laboratory hours. (Same as Psychology 531.)

*495-496. Honors. Fall and Spring (3, 3) Mr. Williams and Staff.

A student admitted to Honors Study is eligible for an award of Honors in Psychology on graduation.

Honors is independent study comprising (a) supervised reading in the field of the student's major interest, primarily in the original literature; (b) the preparation and presentation by May 1 of an Honors Essay based on the student's own research; and (c) satisfactory completion of a comprehensive examination in the field of the student's major interest.

GRADUATE PROGRAM

The department offers the degree of Master of Arts. For degree requirements, and a full description of graduate courses in psychology, write to the department chairman.

Religion

PROFESSOR LIVINGSTON, ASSOCIATE PROFESSORS FINN (Chairman of the Department), and HOLMES, ASSISTANT PROFESSOR VAN HORN, LECTURER KELLNER.¹

AREA AND SEQUENCE GUIDE

Although other area and sequence combinations are possible the following area, sequence and approved topical sequences are recommended for students interested in the study of religion.

Area combinations: 201 (recommended for freshmen and all others without previous college work in religion) and one of any 200-level course, except where noted. 211, 212 (Asian Religions); 217, 218 (Judaica); 219, 220 (Biblical Studies, not open to Freshmen); 265², 266 (Religious Ethics).

Sequence combinations: Because departmental offerings are both multidisciplinary and cross-cultural, it is permissible to take sequence combinations in 200-level courses (see above). The following 300-level sequences are recommended: 305, 306 (Christianity through Early Modern); 307, 308 (Modern and Contemporary Western Religious Thought); 309, 310, 312 (Religion in America); 319, 320, 340 (Buddhism and Modern Hinduism).

Approved Topical Sequences (fulfill area and sequence requirements): 201 or 219 and 217, 218, 312 (Judaica); 201, 265° and 266, 308 (Modern and Contemporary Religious Issues); 201, 219, 220, 305 (Early Western Religions); 201, 309, 310, 312 (Religion in America); 220 and any three: 305, 306, 307, 308 (Western Religious History and Thought).

REQUIREMENTS FOR CONCENTRATION

A concentration in Religion requires 33 semester credits, at least 27 of which must be taken in the Department of Religion. All concentrators must take Religion 201 (Introduction to Religion); Religion 211 (History of Religion in South Asia) or Religion 212 (History of Religion in East Asia); and Religion 219 (History and Religion of Ancient Israel) or Religion 220 (Christian Origins). Upon approval by the chairman of the Department, six credit hours from cognate courses outside the Department may be used to fulfill concentration requirements.

All concentrators should possess some acquaintance with the variety of approaches to the study of religion, with the various theories of the nature and function of religion, and with the beginnings and general history of at least one of the Western and one of the Asian religious traditions. No specific set of courses must be followed by all concentrators, although a concentration should consist of a series of coherently-related courses. A student may wish to divide his work between courses in the Asian and Western religious traditions. Alternately, he may focus his concentration on either the Western or the Asian religions.

DESCRIPTION OF COURSES

201. Introduction to Religion. (A) Fall or Spring (3) Mr. Finn.

An examination of Western man's search for ultimate meaning in myth, sacred history, eschatology and philosophy. The course focuses on the models of human meaning which emerge from the Ancient Near East, Israel, Classical Greece and Early Christianity in the light of contemporary relevance.

¹ On The Jewish Community Council of Newport News Lectureship in Religion.

211. History of Religion in South Asia. (AS) Foll (3) Mr. Van Horn.

Introduction to the religious factors in the civilizations of the South Asian subcontinent from the earliest times to the present. The history, literature, and practices of the Indus Valley Civilization, Vedism, Brahmanism, Jainism, Buddhism, Hinduism, Islam, and the current Hindu Renaissance.

212. History of Religion in East Asia. (AS) Spring (3) Mr. Van Horn.

Introduction to the religious systems of China and Japan, including the literatures, histories, thought patterns, and practices of the major schools of Confucianism, Taoism, Buddhism, and Shintoism.

217. Structures of Judaism. (AS) Fall (3) Mr. Kellner.

A study of the major concepts and practices of Jewish tradition in its various manifestations. The scope of the course is the historical development of Judaism and its contemporary structure.

218. Themes in Jewish Thought. (AS) Spring (3) Mr. Kellner.

A critical examination of Jewish religious thought as it has been shaped by the civilizations and cultures with which it has come in contact. Special attention is given the confrontation with Hellenism, the significance of the Babylonian Talmud, interaction with Islam, co-existence with Christianity, and the encounter with the modern world.

219. History and Religion of Ancient Israel. (AS) Foll (3) Mr. Holmes.

A literary and historical study of the major features of Hebrew-Jewish religion in the Hebrew scriptures and intertestamental periods, with special attention to Israel's relation to the cultures and religions of the Ancient Near East.

220. Christian Origins. (AS) Spring (3) Mr. Finn.

A study of the beginnings of Christianity in the New Testament. Includes analysis of the relation of primitive Christianity to Judaism and Hellenistic culture, the formation of the Gospels, the life and teachings of Jesus, the Pauline writings, and the emergence of post-apostolic Christianity.

265. Religious Ethics. (AS) Foll (3) Mr. Finn.

The nature of western religious ethics based on an analysis not only of Biblical and other religious literature of the Ancient Near East but also the works of classical and modern authors such as Chrysostom, Augustine, Hillel, Aquinas, Luther, Kierkegaard, Bonhoeffer, Buber, Maritain, Niebuhr, and Heschel. (Not offered in 1974-75).

266. Religious Ethics and Social Issues. (AS) Foll (3) Mr. Kellner.

An examination of the critical issues in biomedical ethics such as experimentation with human subjects, transplantation, behavior control, abortion, transexualism, and human sexuality.

305. Christianity: Patristic and Medieval Period. (S) Foll (3) Mr. Finn.

A study of Christian thought and institutions from the second through the thirteenth centuries with emphasis on the representative figures, movements and literature in both Eastern and Western Christianity.

306. Christianity: The Early Modern Period. (S) Spring (3) Mr. Holmes.

A study of the personalities, movements, institutional and theological developments in the Christian churches of Europe and Great Britain from the eve of the Reformation through the eighteenth century. Includes late medieval life and thought, Conciliarism, the life and work of the Protestant and Roman Catholic continental Re-

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formers, the English Reformation, Puritanism, Pietism, the post-Restoration Church of England, Methodism and the Evangelical Revival.

307. Modern Religious Thought: The Enlightenment to Existentialism. (S) Spring [3] Mr. Livingston.

A study of the major developments in Western religious thought from the eighteenth century to the Second World War, with attention given to such thinkers as Hume, Kant, Rousseau, Hegel, Newman and Kierkegaard and to the religious significance of such movements as Rationalism, Romanticism, Idealism, Darwinism and Existentialism

308. Contemporary Religious Thought. (S) Fall (3) Mr. Livingston.

An examination of religious thought since the Second World War through the study of representative writers and themes. Among the writers are: Tillich, Marcel, Buber, Niebuhr and Teilhard de Chardin. Among the themes are: secularization, religious experience, radical theology, religious language, and concepts of God. The theme for 1974–75 is Religious Experience and the Problem of Religious Truth.

309, 310. History of Religion in America. (S) Fall and Spring (3) Mr. Holmes.

A study of religion in the United States from the age of discovery to the present, with attention not only to the development and beliefs of Christian churches and sects but also to the interaction between religion and American social, intellectual, and cultural history. First semester: colonial period to Civil War. Second semester: 1860 to present.

312. Judaism in America. (S) Spring (3) Mr. Kellner.

A study of the arrival of the Jews in America, the development of the religion in the new world, and the contemporary Jewish experience in America. The course will include a study of leading Jewish thinkers and writers.

319. Buddhism in South Asia. (S) Fall (3) Mr. Van Horn.

An intensive study of the Buddhist origins and development in India and the history of the South Asian schools. The classical literature, practices, and beliefs of Buddhism in South Asia, with emphasis on the Theravada school of present Ceylon, Burma, Thailand, etc.

320. Buddhism in East Asia. (S) Spring (3) Mr. Van Horn.

A study of the assimilation of Buddhism in China and Japan. Emphasis upon the literatures, practices, and philosophical statements of Mahayana Buddhism in its various Chinese and Japanese forms.

340. Modern Hinduism. (S) Spring (3) Mr. Van Horn.

A brief survey of the essentials of classical Hindu traditions, followed by an extensive examination of the interactions between these traditions and "Westernization" or "Modernization." Emphasis will be placed upon Ram Mohan Roy, Dayananda, Ramakrishna, Tagore, Gandhi, Radhakrishnan, and to "Universal Hinduism."

425. Contemporary Religious Thought. Fall (3) Mr. Livingston.

Central themes in twentieth century religious thought examined through the works of several significant thinkers, such as Buber, Tillich, Marcel, Niebuhr, Teilhard de Chardin, Bultmann, D. T. Suzuki.

480. Independent Study in Religion. (S) Fall or Spring (3) Staff.

A program of extensive reading and writing in a special area of religion for the advanced student. Students accepted for the course will arrange their programs of study in consultation with appropriate members of the Department.

Sociology

ASSOCIATE PROFESSOR BECKHOUSE (Choirmon of the Department). PROFESSORS ED-MONDS, KERNODLE, RHYNE, and VANFOSSEN. ASSOCIATE PROFESSORS FAIA, GUENTHER, ITO, LIGUORI, THEMO, and THOMAS. ASSISTANT PROFESSORS CHRIST, KERNER, KREPS, and WALTERS. 3

THE SOCIOLOGY PROGRAM

The Department of Sociology does not have or desire a single integrated purpose or educational philosophy. Various members emphasize the following purposes to different degrees: (1) to help students understand the nature of man in society, with particular emphasis on the issues and complexities of modern society; (2) to enhance student's knowledges and capacities for critical and original thought by involving them in the accumulation of scientific information and the development of research and analytic skills; (3) to provide opportunity for students to have a personal educational experience which enhances their own lives and encourages responsible concern for the quality of society; (4) to contribute to the field of Sociology through research, publication, and involvement in professional associations and activities; (5) to recruit promising students into the profession of Sociology; and, (6) to serve the University and society in general, by making available the professional expertise of sociologists.

The Department believes the above purposes to be compatible with one another, and that Sociology must reflect the diversity found in its principle object of study—

namely, modern society.

Concentration in Sociology requires a minimum of thirty semester credits. Students must take 201, 202, 303, 307, 390, and, after completing 390, at least one course numbered 400 or above (480, 481 do not satisfy this requirement). Many courses offered by the College's program in the foreign universities are accepted toward a Sociology concentration, but not as substitutes for the required courses. The minimum credit hour requirement for a concentration is intended to encourage the student to pursue a wider range of electives in order to develop a broad perspective. It also allows the student to develop a special field of interest in an interdisciplinary manner.

Offices and classrooms on the second floor of Morton Hall include a statistical laboratory with 24 automatic calculators. Access to facilities of the Computer Center include an I.B.M. 360, Model 50, ancillary equipment, punch cards and program library. The Department of Sociology is a member of the Marshall-Wythe Institute for Research in the Social Sciences. Eastern State Hospital provides opportunity for research and field work in the Sociology of Mental Illness. Virginia Institute of Marine

Science offers research opportunities in maritime sociology.

Within the Department a wide range and variety of courses are offered covering most of the substantive fields of the discipline as well as its methodology. Whenever possible, the Department attempts to introduce courses affording opportunities for field work application and direct experience. In response to varying needs, interests, and expertise of individual students and staff members, the Department provides means for students to pursue independent research and studies through 490 (Independent Research), 480, 481 (Readings in Sociology), and 495-496 (Honors). Also, the format of 440 (Special Problems in Sociology) allows staff members to present seminar courses, on a one semester basis, which gives them an opportunity to expand a new or specialized interest or research topic. The 440 format allows flexibility, variety, and a means to respond quickly to particular interests expressed by students. It also represents one of the many results of the effective Student-Faculty Liaison Committee within the Department.

3 Visiting Assistant Professor, 1974-75.

On leave of absence, first semester, 1973-74

² Adjunct Associate Professor; Research Director, Criminal Justice Center.

DESCRIPTION OF COURSES

150. Freshman Seminar. Spring (3) Staff.

201-202. Introduction to Sociology. (A) Fall and Spring (3) Staff.

An introduction to the study of human society with emphasis on the basic principles of sociology. Principal concepts developed include society, culture, status and role, socialization and personality, stratification, social organization and institutions, and social change. This course, in providing an integrated set of general principles, is the appropriate introduction to further study in sociology. Sociology 201 is a prerequisite for Sociology 202.

220. Social Problems. (S) Fall and Spring (3) Staff.

A survey of social problems such as poverty, urban conditions, race relations, delinquency and crime, and other recurring problems of major concern to contemporary society. The analytic perspective is sociological, stressing concepts drawn from substantive sub-fields of the discipline.

303. Sociological Theory. (S) Spring (3) Mr. Kerner.

Examination of the historical foundations of sociological theory and the establishment of a basis for rational, objective analysis of recent social phenomena. The contributions of 19th century theorists are traced to provide a framework for the study of contemporary concepts in the field.

307. Introduction to Social Statistics. Fall and Spring (3) Mr. Faia.

The applications and limitations of statistics are presented as means of providing tools whereby statistical methods may be recognized, interpreted, and applied in sociological research. Included are considerations of averages, measures of dispersion and variance, simple linear correlation and sampling theory. Emphasis on the logic of procedures, not on mathematical derivations. Three class hours, two laboratory hours.

313. Social Stratification. (S) Fall (3) Ms. Themo.

Examination of the principal structural units of society. Central focus is on the concepts of differentiation, hierarchy, class, caste, and economic, prestige, and power orders. Comparative analysis, historical and cross-cultural, is followed by consideration of class structure in the United States.

319. Population Problems. (S) Spring (3) Mr. Faia.

A consideration of the manner in which populations grow and decline and the effects of such change on society. Emphasis is on theories of population growth, distribution, births, deaths, internal and international migration, bio-social and sociological composition. Included are discussions of the sources of data and techniques and methods of analysis, as well as contemporary population problems.

322. Criminology. (S) Foll (3) Staff.

An analysis of trends in criminal behavior; emphasis is on theory and research in causation and treatment. Attention is given to criminal careers, to police and correctional systems as control agencies, and to criminal law as an instrument of moral condemnation, retribution and deterrence.

326. Racial and Cultural Minorities. (S) Fall (3) Mr. Liguori.

Distinctions of race and ethnicity in American society and their impact on intergroup relationships and public policy. Attention is given to the nature of racialist ideology, to prejudice and discrimination, and to an analysis of "the culture of poverty". Considered also are less frequently examined and non-problem minority groups.

328. Black-White Relationships in American Society. (S) Spring (3) Mr. Ito.

Demographic and institutional variations among black and white Americans examined in a context of ideological as well as structural change; consequences of racial prejudice and discrimination for black personality and social structure. The Negro heritage in its relationship to the development of black consciousness is also analyzed.

330. Sociology of Mental Illness. (S) Foll (3) Mr. Kernodle. Prerequisite: Sociology 201 or consent of instructor. Limited enrollment.

A seminar on the sociological aspects of mental illness and mental health. The social and cultural sources of mental disorders, definitions, types, distribution within the social structure and sociological factors in the treatment of mental illness will be scrutinized. Consideration of the mental hospital as a social system.

331. The Community and Social Psychiatry. (S) Spring (3) Mr. Kernodle. Prerequisite: Sociology 201 and Sociology 330 or consent of the instructor.

A study of the structure and relationships among various social organizations and professions in the community which are involved in the development and delivery of psychiatric services. Community psychiatry as a social movement is explored and related to changing social values and definitions of illness and health.

332. Marriage and the Family. (S) Foll (3) Mr. Kernodle.

Analysis of the social relationships among people in courtship, marriage and family situations. Interrelations of family institutions and other parts of social structures. Intensive study of American family structure and relevant examples drawn from other cultures.

334. Sociology of Religion. (S) Spring (3) Ms. Themo.

Conceptions of the supernatural in examination of religious beliefs and practices; development of religious groups and institutions; relation of religion to social structure and social change.

335. Sociology of Education. (S) Foll (3) Mr. Ito.

The school as a social institution, as a bureaucratic organization, and in a context of change. Attention is given to the differential impact of social class, family, race, and residence on educational opportunity. Current problems in higher education are considered.

346. Maritime Sociology. (S) Spring (3) Mr. Liguori.

"Description and analysis of the life styles of people oriented primarily to maritime occupations and environments. Attention is directed to inshore vs. distant-water shipboard life styles, the study of specific maritime work organizations distinguished on the basis of technology and research on 'isolated' fishing communities. The reading includes relevant fiction as well as the sociological literature in the field."

349. Human Geography. (S) Fall (3) Mr. Rhyne.

A study of the adjustment of human societies to their physical environment. Emphasis is on the spatial distribution of human population, cultural forms, and social types. Examination of social and cultural bases of environmental pollution and its control.

350. The Sociology of Small Groups. (S) Spring (3) Mr. Beckhouse. Prerequisite: Sociology 201, or Psychology 201, or consent of instructor.

Introduction to theory and research of small group analysis. The structural properties and processes of small groups, theoretical perspectives used to explain social in-

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teraction within the small group context, interpersonal influence, role differentiation, behavioral tactics, and social control within groups are examined.

390. Social Research. Spring (3) Mr. Beckhouse. Prerequisites: Sociology 201 and 307.

Examination of the major issues and strategies involved in conducting sociological inquiry. Special attention is given to such topics as causal inference, sampling frames, structured and unstructured observation, data analysis, and research design and implementation.

404. History of Social Thought. (S) Spring (3) Mr. Rhyne.

A survey of the major strands in social thought in the West and the influence of these on the founding and development of sociology as a separate discipline.

406. Socialization and Society. (S) Fall (3) Mr. Beckhouse.

Analysis of theoretical and empirical issues relevant to socialization. Emphasis is upon the generic process by which individuals become members of society, with special consideration on the impact of socio-economic class, race, and family structure on socialization. Specific examination of socialization beyond childhood is also offered. (Not offered in 1974-75)

408. Intermediate Social Statistics. Spring (3) Mr. Ito. Prerequisite: Soc. 307 or equivalent. Sociology 390 recommended.

A brief review of the logic underlying inductive statistics and tests of significance of single variables followed by tests of significance involving two or more variables. Parametric and non-parametric measures of relationship between two or more variables will also be considered. (Not offered in 1974-75)

410. Deviant Behavior. (S) Spring (3) Mr. Guenther.

Analysis of behavior which violates institutionalized expectations, yet is not necessarily "pathological" or illegal: college cheating, homosexuality, nudism, drug and alcohol abuse, and suicide, for example. Focus is on the internalization of norms and values, sanctioning and stigmatization, and the development of deviant careers.

411. The Future of Modern Society. (S) Fall (3) Mr. Vanfossen.

An analysis of the major strains and changes in modern society and the possible alternative forms human society might take. Particular attention is given to 'the cultural revolution; alienation: ideology; authority and dissent; and personal and social freedom. The basic concern is how both social structure and socialization might be organized to produce a better society.

413. Urban Sociology. (S) Spring (3) Mr. Kreps.

The emergence and structure of the city in historical and cross cultural perspective, with special attention to the phenomena of urbanization and urbanism in the United States. Consideration of urban structure from both ecological and social perspectives; analysis of change in urban structure; selected problems associated with urban growth and life.

415. Ideology in the Social Sciences. (S) Fall (3) Mr. Edmonds.

A study of how values and beliefs of social scientists affect the pursuit of knowledge with emphasis upon the generation of theories of, and engineering programs for, economic, educational, occupational, and racial equality.

416. Social Movements. (S) Spring (3) Mr. Rhyne.

A study of the social and cultural characteristics of contemporary social movements such as liberalism, democracy, socialism, communism, fascism. A critical evaluation

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is made of the philosophies, social foundations, and organizations of important movements. Emphasis on the interplay of these three factors.

422. The Sociology of Knowledge. (S) Fall (3) Mr. Christ.

The course consists of an extensive inquiry into the literature of the sociology of knowledge—a tradition emphasizing the relationship between mental productions and the social circumstances under which they emerge. Emphasis upon the relationships between social structure and general cognitive systems, political ideologies, social norms, and scientific ideas.

431. Industrial Sociology. (S) Spring (3) Mr. Kerner. Prerequisite: Soc. 201.

A sociological and social psychological assessment of complex industrial organizations including a survey of the development of organizational analysis. Individual, group, and system levels of analysis are presented, culminating with a consideration of organizational adaptation for effective utilization of human resources.

433. The Structure of Power. (S) Fall (3) Mr. Rhyne.

The organization of power and authority within the social order. Comparison drawn between different power structures in terms of differences in the social order. An investigation of the writings of some of the major theorists (some combination from Marx, Mosca, Lenin, Pareto, Michels, or Sorel and contemporary authors) on social and political power is undertaken.

438. Social Psychology of Human Groups. (S) Fall (3) Mr. Edmonds.

Examination of the social sources of individual experience and behavior with particular emphasis upon relations within and between human groups. Among the topics considered are human learning, human thought and language, personality development, socialization, social persuasion, crowd behavior, fads, fashions, and social movements.

‡440. Special Problems in Sociology. Fall or Spring (3) Staff.

Selected topics in sociology. The topic to be considered will be announced prior to the beginning of the semester. Instructors may require prior approval for registration.

442. The Sociology of Developing Countries. (S) Spring (3) Ms. Themo.

Examination of processes inherent in cultural, political, and economic development within both emergent and established "under-developed" nations. Focus is on institutional structures and attitude systems supporting modernization of traditional social orders. Main substantive materials are drawn from contemporary Latin America.

480-481. Readings in Sociology. Fall and Spring. (1-3) Staff.

Independent readings directed toward conceptual topics and substantive areas in Sociology. The student will read materials in his own area of interest in consultation with an appropriate staff member. Readings will not duplicate areas covered in courses offered in the curriculum. Prior to registration, students must obtain written permission from both the department chairman and the instructor who will direct the readings. The number of credit hours will be arranged prior to registration and cannot be changed after the "add-drop" period. (480-481 will not satisfy the 400-level course requirement for concentrators.)

490. Independent Research. Fall and Spring. (3) Staff. Prerequisite: Sociology 390.

This course is designed to permit the Sociology concentrator to engage in independent research after completing Sociology 390 (Social Research). Working closely with a staff member as an advisor, each student will be expected to prepare a paper in the form of a senior thesis.

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HONORS STUDY

495-496. Honors. Fall and Spring. (3, 3) Staff.

Sociology Honors candidates enroll for both semesters of their senior year. Requirements include: oral defense of 'Honors Proposal' at the end of the first semester; preparation, under the supervision of a thesis advisor, and presentation by May 1st of a completed honors essay or project; and satisfactory performance in a comprehensive oral examination which focuses on the honors thesis or project.

GRADUATE PROGRAM

The department offers the degree of Master of Arts. For degree requirements, and a full description of graduate courses in sociology, write to the department chairman for a Graduate Catalog.



Theatre and Speech

PROFESSORS SHERMAN (Chairman of the Department), CATRON, HAAK and SCAMMON. ASSOCIATE PROFESSOR BLEDSOE. ASSISTANT PROFESSORS BROWN, MICKEN, and PENCE. INSTRUCTOR WINEBRENNER.

By virtue of his decision to become a Theatre Concentrator the student accepts the requirements demanded by his art—self-discipline, cooperation, dedication, desire for constant improvement toward excellence, curiosity—and the responsibilities to his art which co-exist with those already important ones demanded of him as a college student. The concentrator realizes that he must become acquainted with all facters of theatrical practice and proficient in many. As a Theatre Concentrator the student has special obligations to his theatrical organization—The William and Mary Theatre—the stage counterpoint of his academic career, carefully designed to give him full opportunities to develop his craft and art.

After his graduation he will want to be able to lead others; therefore, he should now seek opportunities to train himself as a leader, under the helpful wing of The Theatre and its Staff. Many opportunities exist for the student's growth in leadership capabilities: in addition to the four major productions produced by The William and Mary Theatre, a student may also participate in Directors' Workshop, plays directed by students in the class in Direction: and in Premiere Theatre, plays written, pro-

duced, directed and acted by students.

His future life in the theatre is greatly dependent upon his own utilization now of the opportunities provided by the activities in The Department of Theatre and Speech. His training at William and Mary provides him excellent preparation to work in theatre, to teach, or to continue studies on a graduate level.

REQUIREMENTS FOR CONCENTRATORS IN THEATRE

A concentration in Theatre requires 30 credits in theatre courses, 28 hours of which must be according to certain areas which insure a balanced and representative program. Students considering a Theatre concentration are advised to take Theatre 204 and/or 205 early in their academic careers, preferably during the Freshman year.

A specific Theatre program must contain the following minimal concentration requirements:

- Two introductory survey courses (6 credit hours) to survey the art and craft of Theatre (i.e., Theatre 204 and 205);
- II. Two courses in Theatre Arts (6 credit hours) chosen from the following selection: Theatre 301 or 302, 317 or 318, 407, 319 or 320;
- III. Two courses in Technical Theatre (6 credit hours) chosen from the following selection: Theatre 305, 309, 313, 321;
- IV. Three courses in Dramatic Literature courses (9 credits) chosen from the following selection: Theatre 315, 316, 403, 404, 410.
- V. During either or both semesters of their Senior year, concentrators are to enroll in Theatre 411, Independent Studies, for a minimum of 1 credit hour and a maximum of 3 credit hours per semester.

THEATRE

204. Introduction to Theatre Arts. (AS) Fall or Spring (3) Mr. Catron, Mr. Scammon.

A survey of the arts of the theatre, plus study of dramatic literature of major periods of theatrical history. Theories and techniques of playwriting, acting and directing will be studied then put into actual practice during laboratory sessions. Two class hours, two laboratory hours.

205. Introduction to Technical Production. (AS) Fall or Spring (3) Mr. Haak, Mr. Sherman.

Study and practice of technical components of the theatre: costuming, lighting, sound, makeup, properties, stage rigging and scene design, construction, and painting. Two closs hours, two laboratory hours.

‡206. Makeup. Spring (2) Mr. Bledsoe.

Study and practice of makeup in relation to light, shade and color; character analysis study, showing the effects of heredity, temperament, environment, health and age. Students in this course assist in William and Mary Theatre productions. Six studio hours.

301, 302. Acting. (S) Foll and Spring (3, 3) Mr. Scammon.

Critical analysis and appreciation of acting developed by lectures, reading and discussion, and presentation of individual and group scenes.

303. Scene Painting. Fall (2) Mr. Bledsoe.

Study of the various techniques of scene painting.

305, 306. Stagecraft. Foll and Spring (3, 3) Mr. Haak.

Study and practice in technical problems; working drawings, construction, scene painting, rigging, and handling of scenery, properties, backstage organization, and sound effects. Students in this course act as technicians for William and Mary Theatre productions. Workshop six hours.

309-310. Design for the Theatre. Fall and Spring (3, 3) Mr. Bledsoe.

Basic analysis of the visual elements of theatrical production. Lectures and demonstrations on significant historical periods. Emphasis is placed on water-color sketching, scene painting, drafting. Students act as technicians for William and Mary Theatre productions. Studio six hours.

312. History and Appreciation of the Motion Picture. Foll or Spring (2) Mr. Haak.

Survey of the historical development of the film in Europe and America, and of organization, management, and mechanical process in production. In laboratory, historic and current films illustrating lecture material are shown. Two class hours; two laboratory hours.

313. Introduction to Stage Lighting. Fall (3) Mr. Sherman.

Methods and materials of stage lighting, with emphasis on the study of the functions and qualities of light, instruments, control equipment, and procedure. Students will assist with William and Mary Theatre productions. Two class hours; two laboratory hours.

314. Stage Lighting Design. Spring (3) Mr. Sherman. Prerequisite: Theatre 313 or consent of instructor.

Theory and technique of stage lighting design, with emphasis on artistic considerations and its value to the director as an interpretative tool. Students will assist with William and Mary Theatre productions. Two class hours; two laborotory hours.

315. History of the Classical and Medieval Theatre. (S) Fall (3) Mr. Scammon.

Study of the forms of the drama, development of the theatre and techniques of the stage of the Greek, Roman and Medieval Ages.

316. History of the Renaissance, Eighteenth and Nineteenth Century Theatre. (S) Spring (3) Mr. Scammon.

Study of the forms of the drama, development of the theatre and techniques of the stage in the Renaissance, Eighteenth and Nineteenth centuries.

317-318. Playwriting. (S) Fall and Spring (3, 3) Mr. Catron.

For the student with interest and ability in creative writing, this course serves as an introduction to stagewriting. Students write a number of plays which are discussed informally in class. Discussions, exercises, and readings help the student find a dramaturgical form to express his ideas. Worthy scripts often receive a Lab Theatre production. (New students may enter the course second semester.)

319, 320. Theatre Administration. Foll and Spring (3, 3) Mr. Sherman.

The principles of management applied to the fields of theatre operations, production and performance, with emphasis given to promotion, box-office procedures and house management.

321-322. Costume Design for the Theatre. Fall and Spring (3, 3)Mr. Bledsoe.

Lectures of historic period costume. Practice in sketching, construction, form, color and detail for stage costumes. Students serve as costumers for William and Mary productions. Advanced students may serve as designers for Theatre productions.

*Theatre 330. American Music Theatre. Spring (3) Mr. Paledes, Mr. Scammon.

A study of American operetta and musical comedy from the colonial period to the present. Representative works from various periods will be studied with respect to their musical and dramatic styles. Students will be required to prepare excerpts for class performance and analysis. Same as Music 318.

403. Seminar in Contemporary Drama. (S) Fall (3) Mr. Bledsoe.

Analysis of late nineteenth and twentieth century drama with special emphasis on forms and styles of the "modernism" movement. Lectures, discussion and research.

404. Seminar in the Modern Theatre since 1950. (S) Spring (3) Mr. Bledsoe.

A study of the latest trends and movements in Theatre. The course places focus upon new concepts of theatre, new styles of theatrical organizations and new playwrights.

*407-408. Direction. (S) Fall and Spring (3, 3) Mr. Scammon.

Study and practice in the principles of choosing the play, casting, rehearsals, and performance. Special emphasis on direction of one-act plays. Two class hours; six laboratory hours.

410. History of the American Theatre. (S) Spring (3) Mr. Catron.

The history of the theatre in America from its beginnings in Williamsburg up to more recent times. Readings of plays and texts are designed to present the more significant developments in American theatre history.

*411. Independent Studies in Theatre. Fall or Spring Staff.

Independent study on a special problem for the advanced student, arranged on an individual basis with credit according to work done.

417-418. Advanced Playwriting. (S) Foll and Spring (3, 3) Mr. Catron.

Study in depth of form and content in drama, accomplished by readings of dramatic theories as well as of original playscripts, plus the writing of plays. Prerequisite: Theatre 317-318, at least one additional Theatre course, and permission of instructor.

SPEECH

201. Public Speaking. Fall or Spring (3) Mr. Micken, Mr. Winebrenner.

Understanding and application of the principles of public speaking. Analysis of speeches based on organization, content, and delivery.

203. Voice and Diction. Fall or Spring (3) Mrs. Brown.

Study of processes of oral speech, including development of speech in young children, physics of sound, physiological, psychological and social bases of speech and phonetics. Training in voice production, articulation, pronunciation and quality.

303. Oral Interpretation. Fall (3) Mrs. Brown.

Study of basic principles in techniques of oral interpretation. Use of body, voice, analysis of materials, reading and evaluations of prose. Three class hours, one hour practicum.

304. Advanced Oral Interpretation. Spring (3) Mrs. Brown. Prerequisite: Speech 303 or consent of the instructor.

Study of and training in techniques of oral interpretation of poetry. Three class hours, one hour practicum.

301. Foundations of Broadcasting. Fall (3) Mr. Pence.

An examination of the history and evolution of broadcasting as it exists in the United States, with consideration of business, regulatory and social aspects as they relate to the contemporary system.

302. Beginning Broadcast Production. Spring (3) Mr. Pence.

Fundamentals of radio program production. Emphasis on production and methods and problems at the level of the local station. Laboratory work involves the application of program and production theory. Six hours studio.

308. Speech Composition and Briefing. Spring (3) Mr. Micken.

Study of the special techniques of speech construction as applied to advanced forms of public address, emphasizing structure, arrangement, and style. Special attention given to the application of the principles to persuasion and to argumentation.

309. Argumentation and Debate. Fall (3) Mr. Micken.

Training in the techniques and practices of argumentative speaking, study and analysis of debate propositions, preparation of the brief, research and selection of evidence, and practice in rebuttal and refutation. Lectures and class debating.

310. Principles of Group Discussion. Spring (3) Mr. Micken.

Study of logical and psychological foundations of discussion as a method of dealing with public questions, considering problems of adjustment, communication and collaborative action in small groups. Emphasis on principles, types and methods of discussion. Lectures and practice participation. (Alternates with Speech 308.)

401. Studio Operations: Directing for Television. Fall (3) Mr. Pence. Prerequisite: Speech 302 or consent of the instructor.

A study of theory and methods of television production and direction. Detailed examination of cameras, lights, audio, graphics, design and responsibilities of studio and control room personnel. Six hours studio.

402. Television Writing and Production. Spring (3) Mr. Pence. Prerequisite: Speech 401.

A study of the theory and methods of writing, producing and directing for television with emphasis on limitations and responsibilities of the medium. Opportunity to supervise all aspects of television production. *Six hours studio*.



Graduate Program in Applied Science

Applied Science at the College of William and Mary is an inter-disciplinary graduate program which leads to a M.S. degree. Courses will be taught on the main campus and at the Virginia Associated Research Campus (VARC) in Newport News on a rotating basis so that students can methodically pursue a degree by taking most courses

at the Research Campus.

The program is offered cooperatively by participating faculty from the departments of chemistry, mathematics, and physics and is intended for students who wish an education with a focus which differs from that of traditional departments. This difference may arise from a course sequence which is interdisciplinary or one which is more specialized than usual within a department. The Applied Science program is organized as follows:

- I. Applied Mathematics and Computer Science Area
 - A. Applied Mathematics Division
 - 1. Probability and Statistics Specialization
 - 2. Partial Differential Equations Specialization
 - 3. Ordinary Differential Equations Specialization
 - B. Computer Science Division
 - 1. Computer Languages and Programming Systems Specialization
 - 2. Numerical Analysis Specialization
 - 3. Mathematical Programming and Simulation Specialization
- II. Chemical Physics Area
 - A. Atmospheric and Plasma Science Division
 - 1. Atmospheric Science Specialization
 - 2. Ion-Molecule Reaction Specialization
 - 3. Plasma Specialization
 - B. Liquids and Solids Division
 - 1. Polymers Specialization
 - 2. Crystalline Materials Preparation Specialization
 - 3. Physics of Electronic Devices Specialization

School of Business Administration

PROFESSORS QUITTMEYER (Dean of the School of Business Administration), PARK, QUINN, SANCETTA, STANLEY, and TRAYWICK (Director of the Bureau of Business Research). ASSOCIATE PROFESSORS COLE, DAFASHY, JONES, LIDDELL, O'CONNELL (Associate Dean for Graduate Studies, School of Business Administration), PEARSON, SMITH (Associate Dean for Undergraduate Studies, School of Business Administration), WARREN, and WOODWARD. ASSISTANT PROFESSORS BLOOD, CHASTAIN, ELGERS, MADDOCKS, MESSMER, TARLETON, and WILLIAMS. Lecturer CLEYSTEEN.

The School of Business Administration offers both an undergraduate program and a

graduate program in Business Administration.

The undergraduate degree of Bachelor of Business Administration (B.B.A.), which is accredited by the American Assembly of Collegiate Schools of Business (AACSB), carries a choice among three subprograms, two in Accounting (one with a Certified Public Accountant [CPA] orientation and one without) and one in Management.

These three subprograms are not concentrations. Concentrations are taken only in the undergraduate programs of the Faculty of Arts and Sciences leading to the A.B.

and B.S. degrees.

The graduate program leads to the degree of Master of Business Administration

(M.B.A.).

The Bureau of Business Research of the School renders a service to the Virginia business community with its monthly publication, the Virginia Business Index Report, which reflects current business and economic activity in the Commonwealth. The Bureau also publishes monthly the Williamsburg Business Index Report. In addition, the Bureau from time to time publishes special research studies.

Further service to the business community is provided by the School through spon-

sorship of business conferences and projects.

Established in 1970, the School of Business Administration Sponsors, Inc., a private group with a board of directors of nineteen executives, lends advice and support to the School.

CURRICULUM REQUIREMENTS

Bachelor of Business Administration Degree

Prior to the student's junior year, only at which time, or later, admission to the School and its B.B.A. degree program may occur, the student must follow and complete the area requirements in Arts and Sciences consisting of a minimum of two semester courses in each of the three Arts and Sciences areas and two additional semester courses outside of Area II so that at least four semester courses outside of Area II form a logical sequence of introductory and advanced courses or a logical combination of courses on an interdisciplinary topic. Also, the student must complete whatever requirements in Arts and Sciences prevail in regard to English, Foreign Language, and Physical Education. However, the student should take, during the sophomore year, Business 201-202 (Principles of Accounting). No other Business Administration course may be taken before the student's junior year.

Prerequisites to admission to the School are six semester credits in mathematics and six semester credits in economics which also satisfy the area requirements in

these subjects.

Before being graduated with the B.B.A. degree, the student must have completed a

minimum of sixty semester credits in Arts and Sciences academic subjects.

Application for admission to the School of Business Administration's B.B.A. degree program normally is filed by the student during the second semester of the sophomore year through the Office of the Dean of Students. Such application is then acted upon by the School's Undergraduate Committee on Admissions, whereupon the student is notified directly, with the Office of the Dean of Students apprised of admission ac-

tions taken. A student who has achieved junior standing, has completed all Arts and Sciences proficiency and area requirements, and has met the School of Business Administration's prerequisite requirements, as above, will be fully admitted to the undergraduate program. A student who has deficiencies in any of the above, but whose class standing is such that a Business subprogram should be selected, will be considered for admission on provisional status. Provisionally admitted students will be required to give priority to completion of any deficiencies.

The following requirements for completion of the B.B.A. degree, subject to the aforementioned curriculum requirements, will hold for each of the School's three subprograms. A 1.0 quality point average is required, counting all courses for which quality point grades are given, and a 1.0 quality point average in all Business Admin-

istration courses taken in which quality point grades are given.

Upon admission to the School of Business Administration all candidates for the B.B.A. degree shall come under the jurisdiction of the School's administration, including its Undergraduate Committee on Academic Status and Undergraduate Committee on Degrees, in all matters appropriately pertaining thereto.

In addition to the general requirement of a minimum of sixty semester credits in Arts and Sciences academic subjects, the Business Administration course require-

ments common to all three supprograms are as follows:

Subject	Semester Credits
Business 201-202 (Principles of Accounting)	6
Business 311 (Principles of Marketing) '	3
Business 316 (Behavioral Science and the Business Organization)	3
Business 323 (Financial Management)	3
Business 330 (Production Management)	3
Business 331 (Business Statistics)	3
Business 341 (Business Law I)	3
Business 416 (Business Policy)	3
Total	

For the subprogram in Accounting with a Certified Public Accountant (C.P.A.) orientation the remaining requirements for the B.B.A. degree are:

Subject			Semester Credits
Business 301-302 (Intermediate Accounting)	 	 	. 6
Business 303 (Cost Accounting)	 	 	. 3
Business 318 (Quantitative Analysis for Business Decisions)	 	 	. 3
Business 342 (Business Law II)	 	 	. 3
Business 401 (Advanced Accounting)	 	 	. 3
Business 404 (Auditing)	 	 	. 3
Business 405 (Federal Taxation)	 		. 3
Business 407 (Seminar in Accounting)	 	 	. 3
Business 409 (Accounting Systems and Data Processing)	 		. 3
Elective	 		3
Total			. 33

For the subprogram in Accounting not C.P.A. oriented the remaining requirements for the B.B.A. degree are:

·	Semester Credits
Business 301-302 (Intermediate Accounting)	. 6
Business 303 (Cost Accounting)	. 3
Business 401 (Advanced Accounting)	
Business 405 (Federal Taxation)	. 3
Business 407 (Seminar in Accounting)	. 3
Business 409 (Accounting Systems and Data Processing)	. 3
Electives	. 12
Total	. 33

For the subprogram in Management the remaining requirements for the B.B.A. degree are:

	Semeste Credits
Business 315 (Industrial Relations)	. 3
Business 318 (Quantitative Analysis for Business Decisions)	. 3
Business 327 (Principles of Management)	. 3
Business 334 (Decision Theory)	. 3
Business elective	. 3
Electives	. 18
Total	. 33

ELECTIVE COURSES FOR NON-BUSINESS STUDENTS

A number of undergraduate students from other disciplines choose School of Business Administration courses as electives. The School of Business Administration welcomes such students, and in the interest of providing some breadth of subject matter particularly suggests the following courses, not necessarily in sequence. (Economics 201, 202 should precede taking Business 311 and Business 327).

Business 311 (Principles of Marketing)

Business 316 (Behavioral Science and the Business Organization)

Business 327 (Principles of Management)

Business 341 (Business Law I)

Business 410 (Survey of Accounting)

It should be noted that no Business courses may be taken before the junior year, except Business 101-102 (Principles of Accounting), which may be taken in the sophomore year or later.

DESCRIPTION OF COURSES: ACCOUNTING

(Junior or higher standing is required before admission to any of the following courses, except that sophomore or higher standing is required for admission to Business 201-202.)

201-202. Principles of Accounting. Fall and Spring (3,3) Staff.

The managerial uses of accounting reports and preparation of financial statements for external reporting. Included are performance and cost measurements, planning operations, and balance sheet, funds flow, and income statements.

301-302. Intermediate Accounting. Fall and Spring (3,3) Mr. Quinn. Prerequisites: Bus. 201-202.

An analysis of balance sheets and profit and loss statements, together with the theory of valuation underlying the various accounts used in these statements.

303. Cost Accounting. Foll (3) Mr. Elgers. Prerequisites: Bus. 201-202.

The fundamentals of job order, process, and standard cost accounting and cost and profit analyses for decision-making purposes. Problems are used.

401. Advanced Accounting. Foll (3) Mr. Smith. Prerequisites: Bus. 301-302, or permission of the instructor.

A study of consolidated statements, partnership accounting, accounting for special sales arrangements, fiduciary accounting, and fund accounting.

404. Auditing. Fall (3) Mr. Elgers. Prerequisites: Bus. 301-302.

Auditing procedures through the application of auditing principles; standards and ethics; audit reports.

405. Federal Taxation. Spring (3) Mr. Smith.

An analysis of federal income tax laws. Development of conceptual awareness of federal income tax structure and tax planning, and gaining ability to determine solutions to tax difficulties confronting organizations.

407. Seminar in Accounting. Spring (3) Mr. Chastain. Prerequisites: Bus. 301-302.

Selected topics based upon controversial issues in accounting theory and practice.

409. Accounting Systems and Data Processing. Foll (3) Mr. Williams. Prerequisites: Bus. 301-302.

The development, organization, design, analysis, and improvement of manual and automated business information systems.

410. Survey of Accounting. Spring (3) Mr. Dafashy.

A survey of the general field of accounting. Open to students of junior or higher standing not admitted to the School of Business Administration and not having taken Bus. 201 or 202.

DESCRIPTION OF COURSES: MANAGEMENT

(Junior or higher standing is required before admission to any of the following courses.)

311. Principles of Marketing. Fall and Spring (3) Mr. Stanley and Mr. Messmer. Prerequisites: Econ. 101-102, or permission of the instructor.

A study of the role of marketing in business and the economy. Emphasis is on the examination of functions, institutions, and policies.

312. Marketing Problems. Spring (3) Mr. Messmer. Prerequisites: Econ. 101-102, or permission of the instructor.

An examination of marketing problems encountered at all levels of distribution. Cases are used to emphasize analysis and decision-making.

315. Industrial Relations. Fall and Spring (3) Mr. Cole and Mr. Liddell.

A course to provide understanding of the principles, policies, and practices used to develop a sound industrial relations program. Topics included are job analysis, the employment process, employee development, wage and salary administration, labor relations, and union negotiation.

316. Behavioral Science and the Business Organization. Fall and Spring (3) Mr. Cole.

A study of human behavior, development, and motivation in the business organization. Attention is given to behavioral science research in administration.

318. Quantitative Analysis for Business Decisions. Fall and Spring (3) Mr. Blood, Mr. Dafashy, and Mr. Elgers. Prerequisites: Six credits in mothemotics, or permission of the instructor.

A course which integrates quantitative decision methods and the team approach to research problems of interest to management. Attention is given to probability theory, linear programming, and other quantitative approaches used in the analysis of business problems.

320. Advertising. Spring (3) Mr. Gleysteen. Prerequisites: Econ. 101-102, or permission of the instructor.

A study of the relationship of demand stimulation to business management. Analysis of cases will emphasize the management of advertising campaigns, expenditures, and the integration of advertising efforts as part of the total marketing concept.

323. Financial Management. Foll and Spring (3) Mr. O'Connell and Mr. Pearson. Prerequisites: Bus. 201-202.

An introductory course covering current and long-term financing of the firm, capital budgeting, dividend policies, and business expansion.

327. Principles of Management. Fall and Spring [3] Mr. Maddocks and Mr. Jones. Prerequisites: Econ. 101-102, or permission of the instructor.

An introduction to the principles of management and their application to business. Emphasis is given to the development of a philosophy of management.

328. Management Use of Accounting Data. Foll and Spring (3) Mr. Dafashy. Prerequisites: Bus. 201-202 and 327, or taking Bus. 327 concurrently. (For Management subprogram students only.)

A course to enable more comprehensive analysis of decisions through accounting information. Emphasis is upon budgeting, cost concepts and applications.

329. Management of Small Business. Fall (3) Staff.

A study of the special problems, analysis, and decision-making involved in the management of small business.

330. Production Management. Spring (3) Mr. Maddocks and Mr. Tarleton. Prerequisites: Bus. 331, or taking Bus. 331 concurrently.

A course designed to familiarize the student with the production phase of business activity. Emphasis is on developing ability to use analytical methods in the design and operation of production systems.

331. Business Statistics. Fall and Spring (3) Mr. Dafashy, Mr. Traywick and Mr. Woodward. Prerequisites: Six credits in mothemotics, or permission of the instructor.

A study of the basic tools of statistical analysis used by the business administrator.

 ${\bf 334.}\,$ Applied Computer Programming. Fall and Spring (3) Mr. Blood and Mr. Woodward.

Solution of business problems under conditions of uncertainty. Computer programming is taken up and used to assist in the solution of problems.

341. Business Law I. Fall and Spring (3) Mr. Jones.

Contracts, sales, negotiable instruments and agency with emphasis on the Uniform Commercial Code.

342. Business Law II. Spring (3) Mr. Jones. Prerequisite: Bus. 341.

Bailments and carriers, partnerships, corporations, unfair competition, bank-ruptcy, secured transactions, property, trusts, mortgages, and insurances.

411. Managerial Economics. Spring (3) Staff. Prerequisites: Econ. 101-102.

A course to provide the student with an appreciation and basic understanding of the contributions of economics applied to the decision making process.

412. Business Logistics. Spring (3) Staff. Prerequisites: Bus. 311, 327, 330, and 331.

A course to provide the student with an introduction to the total cost concept at top management level of all aspects of the physical distribution function.

414. Investments. Spring (3) Staff. Prerequisites: Bus. 201-202 and 323, or permission of the instructor.

An examination of the securities markets and the characteristics of the various types of securities for institutional and personal investment. Sources of investment information, approaches to investing, personal investment planning, and elements of analysis are introduced.

416. Business Policy. Fall and Spring (3) Mr. Maddocks and Mr. Warren. Prerequisite: Senior standing in the School of Business Administration, or permission of the instructor.

A course which deals with the establishment of company-wide objectives and the subordinate plans and controls to accomplish them. This course integrates and builds upon the business administration body of knowledge to develop decision-making ability at the policy-making level of administration.

430. Project in Business Research. Fall and Spring (3) Mr. Quittmeyer and Mr. Smith. Prerequisite: Senior standing in the School of Business Administration, or permission of the instructor.

Independent research culminating in the preparation of a project on a topic of business interest.

STUDENT HONORS

Beta Gamma Sigma is the national honorary society which recognizes excellence of academic achievement in the Schools of Business Administration accredited by the American Assembly of Collegiate Schools of Business. Beta Gamma Sigma was founded in 1907 to encourage and reward scholarship and accomplishment in the field of business studies, to promote advancement of education in the science of business, and to foster principles of honesty and integrity in business practice.

GRADUATE PROGRAM

The School of Business Administration offers the degree of Master of Business Administration. For degree requirements and a full description of graduate work in Business Administration, write to the Associate Dean for Graduate Studies, School of Business Administration, for the School's Graduate Catalog.

PROFESSORS YANKOVICH (Dean of the School of Education), CHESSER, CLEM, GALFO, HERRMANN, and UNGER, ASSOCIATE PROFESSORS ADAIR, BULLOCK, FLANAGAN, GEOFFROY, GERBER, GULESIAN, HANNY, JONES (Associate Dean of the School of Education and Director of Graduate Studies), LAVACH, MAIDMENT, MESSIER, O'SHELL, PRILLAMAN, RIES, and SYKES (Director of Educational Placement and Coordinator of Field Activities). ASSISTANT PROFESSORS BLOOM, BRINKLEY (Director of the Reading Center), DELAUNE, EDELMAN, GARLAND, LOSITO, MATTHEWS, NELSON, and WHEELER.

UNDERGRADUATE CONCENTRATION

It is the philosophy of the School of Education that sound preparation for teaching must be based upon study in the Arts and Sciences and must include a carefully planned sequence of study in professional education supplemented by a supervised teaching experience.

Procedures and Requirements for Admission to Undergraduate Concentration

Admission to Baccalaureate study at the College of William and Mary does not include admission to undergraduate concentration in the School of Education. Students who wish to concentrate in Education must meet the admissions requirements of the School of Education.

Application for admission to the School of Education is made during the second semester of the sophomore year. Applications are also accepted (1) from students who wish to change their concentrations from some other field to Education provided this is done prior to the second semester of the senior year, and (2) from transfer students who have been admitted to the College.

The criteria for admission to undergraduate concentration in the School of Education include the following:

- (I) An overall quality-point average of at least 1.0 (3.0 scale) earned in work completed to date.¹
- (2) Personal qualities which are necessary for successful teaching as indicated in a personal interview. (Information about the interview is given to the student after he has filed application.)

Application forms and information regarding admissions procedures may be obtained from the Office of the Dean, School of Education.

UNDERGRADUATE PROGRAMS OF STUDY

Those students who are admitted to the School of Education concentrate in either elementary education or secondary education. The successful completion of either of these programs will insure the student of receiving the Collegiate Professional Certificate from the State Board of Education of the Commonwealth of Virginia.²

Elementary Education

The program of studies which leads to the Bachelor of Arts degree in Elementary Education has been developed upon the basis of the belief that the most effective preparation of elementary school teachers is a liberal arts education augmented with

^{&#}x27;tn addition to the 1.0 overall quality-point average, juniors and seniors who wish to change their concentrations from some other field to Education must have at the time of application a 1.5 quality-point average in their present fields of concentration.

Courses at the 300 and 400 level in the School of Education may be taken only by students who have attained junior or senior status.

intensive study of the theory of education and with continuous opportunity for its application. Actual experience in working with children of elementary school ages is begun early in the program and culminates with full-time student teaching which is undertaken during the Professional Semester.

The Professional Semester for Elementary Education concentrators is completed during the Fall or Spring Semester of the senior year and includes, in addition to student teaching, Education 305—Materials and Methods in the Elementary School, and Education 404—Cultural Foundations of Education. During the semester, the student is afforded opportunities for classroom observation and participation while attending classes on campus. The second half of the semester is spent in full-time student teaching supplemented with flexibly scheduled professional seminars.

The suggested program of studies described below not only satisfies the area and sequence requirements for the bachelor's degree, but also leads to certification for elementary school teaching in the Commonwealth of Virginia. In addition to the area and sequence requirements, students must meet the proficiency requirements speci-

fied in the Undergraduate Catalog of the College 1974-75.

Area and Sequence Recommendations for Elementary Education Concentrators

Area I
It is strongly recommended that prospective Elementary Education concentrators fulfill area and sequence requirements in the field of English. The following combination of English courses is suggested: one linguistics course (English 211, 403, or 404); one introductory literature course (English 201); and two advanced courses in literature (English 363, 364, or 460). *Area II
Course Requirements for Teacher Certification
English (grammar)
English (composition)
Economics 101 or 102 if not met as an area requirement 3 Sem. Hours
Fine Arts 111 or 112
History 201 or 202 if not met as an area requirement 3 Sem. Hours
Mathematics 105, 106 if not met as an area requirement 6 Sem. Hours
Music 320
Physical Education (Must include P.E. 321E) 6 Sem. Hours
*Elementary Education concentrators need to take 15 semester hours in the social sciences. An American History course and an economics course must be in-
cluded.
Elementary Education Requirements
Science
(If not met as an area requirement)
Speech 203
Professional Education
Education 301—Educational Psychology 3 Sem. Hours Education 302—Fluman Growth and Development 3 Sem. Hours

Education 304—Teaching Reading in the Elementary School	3 Sem.	Hours
Education 307—Teaching Mathematics in the Elementary School	3 Sem.	Hours
Education 308—Diagnostic Teaching of Reading	3 Sem.	Hours
Education 321—Children's Literature	3 Sem.	Hours

Professional Semester

Education 305—Methods & Materials in the Elementary School	6 Sem. Hours
Education E401A or E401B—Supervised Teaching	6 Sem. Hours
Education 404—Cultural Foundations of Education	3 Sem. Hours
Total required hours in Education: 33 Semester Hours.	

ELECTIVES

Electives should be selected in cooperation with an advisor from the School of Education. The number of elective credits varies depending upon performance on proficiency examinations and other such factors.

GRADUATION REQUIREMENTS

Concentrators in Elementary Education are reminded of the fact that they may apply only twenty-seven semester credits in education toward the A.B. degree. Since the program in Elementary Education requires a total of thirty-three semester credits in Education this means that the Elementary Education concentrator must complete a minimum of 126 academic hours to be eligible for graduation.

SECONDARY EDUCATION

The student who wishes to prepare for teaching at the secondary school level is encouraged by the School of Education to concentrate, wherever possible, in the appropriate department of the Faculty of Arts and Sciences and, with the assistance of his advisor, to incorporate into his program the professional study described below.

In those cases where it is necessary to concentrate in Secondary Education, rather than in departments of the Faculty of Arts and Sciences, students must follow the undergraduate admission procedures as outlined in The Undergraduate Catalog. Those admitted who wish to prepare to teach a single subject pursue a program which includes, in addition to the professional sequence of eighteen semester hours, at least as many semester hours of study in the subject field as would be required for concentration in the appropriate department. In addition, those admitted to concentration in Secondary Education may pursue interdisciplinary programs of study which include the preparation needed for certification to teach more than one subject, e.g., the endorsement in History and the Social Sciences. Interdisciplinary programs typically include, in addition to the eighteen semester hours in Education, from forty to fifty semester hours of study in the teaching fields.

Each student should become familiar with the certification requirements of the State Department of Education in regard to an endorsement in his chosen subject field. In some instances, courses are required which may not be required by the department for concentration. Information about endorsement requirements may be obtained from the Office of the Dean, School of Education.

The following program of professional preparation must be completed by all students preparing for secondary school teaching.

	 neste edits
Education 301—Educational Psychology	3
Education 302—Human Growth and Development	 3
Professional Semester	
Education 303—Instructional Materials and Methods	 3
Education S401—Supervised Teaching	 6
Education 404—Cultural Foundations of Education	 3
TOTAL	 18

The Professional Semester (Education 303, S401, and 404) is taken in either the Fall or Spring Semester of the senior year. It should be understood that the experiences in the subject areas indicated by the course titles are integrated to the point where the typical concept of the relatively discrete course does not apply. For this reason, each student must register for the total Professional Semester. In addition to the twelve semester hours in Education, however, the student is permitted to carry one additional three semester hour course which may be in his field of concentration. The additional course must be one that is scheduled to meet in the late afternoon or in the evening—in most cases, 3:00 p.m. or later.

ADMISSION AND PREREGISTRATION PROCEDURES FOR STUDENT TEACHING

In order to be permitted to undertake student teaching at the elementary level, concentrators must have successfully completed Education 301, Educational Psychology, Education 302, Human Growth and Development, Education 304, Teaching Reading in the Elementary School, and Education 305, Materials and Methods in the Elementary School. In addition, the Elementary Education concentrator must have the approval of his advisor to proceed with student teaching.

Those students who wish to student teach at the secondary level, whether or not they are concentrating in the School of Education, must meet the following requirements.

- May not take more than 15 credit hours or its equivalent during the semester of student teaching.
- 2. Must have the approval of the department of his concentration regarding the adequacy of his subject matter preparation.
- 3. Must have received credit for Education 301 and 302 with the grade of "C" or better in each of these courses.
- Prior to enrollment in student teaching, must have completed an approved field experience.

Student teachers are placed in schools in the following school divisions: Williamsburg-James City County, Newport News, York County, and Hampton.

It is necessary that students preregister for student teaching so that sufficient time is provided for making necessary arrangements with the cooperating school divisions. Preregistration must be done individually with Dr. Robert Hanny (Secondary Education), or Dr. James Cowles (Elementary Education). Preregistration for the subsequent Fall or Spring semester must be completed by April 15.

DESCRIPTION OF COURSES

301. Educational Psychology. Fall and Spring (3) Mr. Adair, Mr. Lavach, and Mr. Ries.

A course in which current theories of learning are analyzed with emphasis upon the basic factors of motivation, learning, retention, and transfer. Special emphasis is placed on educational implications of empirical and theoretical findings. **302.** Human Growth and Development. Fall and Spring (3) Mr. Lavach and Mr. Matthews.

A course in which selected theories and research findings dealing with progressive human growth and development from conception to senescence are examined. Major emphasis is placed on genetics, sensory-motor development, cognition, personality, perception, and emotion. Educational implications are explored.

303. Instructional Materials and Methods. Fall and Spring (3) Mr. Flanagan, Mr. Garland, Mr. Gulesian and Mr. Hanny. Part of the professional semester in secondary education. Prerequisites: Education 301, 302, and fifteen semester credits in the subject of teaching choice.

A basic course in instructional methodology. Students plan, teach, and evaluate simulated lessons.

304. Teaching Reading in the Elementary School. Fall and Spring (3) Mr. Brinkley. Part of the professional semester in elementary education.

A basic course in the fundamentals of instruction in reading. This course is concerned with the application of the principles of learning and child development to the teaching of reading and the related language arts.

305. Materials and Methods in the Elementary School. Foll and Spring (6) Mr. Wheeler. Part of the professional semester in elementary education. Prerequisite: Education 304.

A continuation of 304 with emphasis upon the areas of social studies, science, and physical education.

S305. The Teaching of High School Latin. Fall or Spring (3) Mr. J. W. Jones. Same as Latin 405.

307. Teaching Mathematics in the Elementary School. Fall and Spring (3) Mr. Flanagan. Prerequisites: Mathematics 105, 106.

A course designed to supplement the prospective elementary school teacher's preparation in algebra and geometry while concentrating mainly on effective pedagogy and materials for the teaching of mathematics in grades K through 6.

308. Diagnostic Teaching of Reading. Both semesters; lectures three hours; three credits. Prerequisite: Ed. 304 or consent of the instructor. Mr. Edelman.

A course which includes (1) techniques for the evaluation of reading progress. (2) an examination of difficulties frequently experienced by children in learning to read, (3) an examination of diagnostic techniques that can be used by the classroom teacher, (4) methods of differentiation of instruction to fit individual capabilities, and (5) various corrective methods for use in the classroom.

321. Children's Literature. Fall and Spring (3) Mrs. Delaune.

A course including the study of children's reading interests, criteria for selection of materials, practice in evaluating materials, and a survey of the history and trends in publishing children's books.

400. Problems in Education. Fall and Spring (to be arranged) Staff.

A course designed for students who are capable of independent study under the direction of, and in consultation with, staff specialists. Students undertake study and research of educational problems of individual concern resulting from previous study or experience.

401A. Supervised Teaching, Grades K-3. Fall and Spring (To be arranged) Staff. Prerequisites: Education 301, 302, 304, 305.

A student teaching experience offered as part of the professional semester for prospective elementary school teachers at the kindergarten and primary levels.

401B. Supervised Teaching, Grades 4-7. Fall and Spring (To be arranged) Staff. Prerequisites: Education 301, 302, 304, 305.

A student teaching experience offered as part of the professional semester for prospective elementary school teachers at the upper elementary level.

402. Supervised Teaching, Secondary Level. Fall and Spring (To be arranged) Staff. Prerequisites: Education 301, 302.

A student teaching experience offered as part of the professional semester for prospective secondary school teachers.

404. Cultural Foundations of Education. Fall and Spring (3) Mr. Losito, Mr. Unger. Part of the professional semester in both elementary and secondary education.

A course dealing with the development of educational traditions, philosophical constructs underlying American practices of education, and the analysis of contemporary problems in light of this historical and philosophical background.

TEACHER SCHOLARSHIPS, LOANS AND STUDENT EMPLOYMENT

Virginia Teacher's Scholarship/Loan

In addition to the financial assistance programs administered by the Director of Student Aid and Placement for the College, undergraduate students who are Virginia residents and who plan to concentrate in Education are eligible for Teacher Training Scholarships which are administered by the School of Education. These scholarships are made possible by an appropriation of the General Assembly of Virginia and are available to freshmen, sophomores, juniors, and seniors who plan to teach in the public schools of the Commonwealth. The scholarships are for \$450 per academic year and for proportionate amounts during the Summer Session. Inquiries should be addressed as follows:

The Director of Educational Placement and Coordinator of Field Activities School of Education
College of William and Mary
Williamsburg, Virginia 23185

Kappa Delta Pi Scholarship

The Alpha Xi Chapter of Kappa Delta Pi, national honor fraternity for teachers and students in Education, annually offers a \$150 scholarship to the student displaying combined scholarship and outstanding professional qualities. Inquiries should be directed to the Director of Educational Placement and Coordinator of Field Activities.

EDUCATIONAL PLACEMENT

The School maintains an Educational Placement Office to assist its graduates who plan to teach or who are seeking changes in employment. No registration fee is charged, and all students enrolled in the School are urged to avail themselves of this service. If the students file and maintain complete records with the Placement Office, the office can be of assistance to those who go into teaching, not only at graduation, but also offer assistance to alumni making changes in their professional positions.

STUDENT HONORS AND ACTIVITIES

Kappa Delta Pi

This honor society in Education was first organized in 1911, and Alpha Xi Chapter of the College of William and Mary was chartered in 1922. The purpose of Kappa Delta Pi is to encourage high professional, intellectual, and personal standards, and to recognize outstanding contributions to education. To this end the organization invites to membership persons who exhibit commendable personal qualities, worthy educational ideals, and sound scholarship. The organization endeavors to maintain a high degree of professional fellowship among its members and to quicken professional growth by honoring achievement in educational work. Both men and women are eligible for membership.

Student Education Association

This student organization, which complements the National Educational Association and the Virginia Educational Association, has been active in furthering professional competence and providing members with introductions to the national and state professional organizations. All prospective teachers are eligible for membership.

GRADUATE STUDY

Graduate study is available for those who have completed with merit an undergraduate degree program at an accredited institution. The School of Education awards the degrees of Master of Arts in Education and Master of Education in a variety of fields. In addition, the Certificate of Advanced Study (thirty semester hours beyond the Master's degree) and the Doctor of Education degree are offered in Educational Administration, Higher Educational Administration, and Counseling. For complete course descriptions and detailed information relating to the graduate program consult the School of Education Catalog, copies of which are available upon request from the Office of the Dean, School of Education.

MARSHALL-WYTHE SCHOOL OF LAW

PROFESSORS WHYTE (Dean), DONALDSON, FISCHER, JOLLS, LLEWELLYN, POWELL, SWINDLER(John Marshall Professor of Law) and WHITNEY. ASSOCIATE PROFESSORS BROWN, COLLINS, LANG, LEAVELL, MADISON, RENDLEMAN, SULLIVAN (Associate Dean), WALCK, WHITEHEAD (Law Librarian), WILLIAMS, and WILLIAMSON. ASSISTANT PROFESSORS DUNAHOO, FOWLER AND SCHAEFER. ADJUNCT PROFESSOR FITCH. LECTURER ANDERSON. CUTLER LECTURER IN CONSTITUTIONAL LAW SPONG.

Law School origins date from 1779 when George Wythe was appointed professor of law, making the College of William and Mary the first to offer instruction in law. The School is named for Wythe and John Marshall, Wythe's most renowned student and later Chief Justice of the United States. Marshall-Wythe is accredited by the American Bar Association, is a member of the Association of American Law Schools and is registered by the New York State Department of Education.

BASIC PROGRAM OF STUDY AND DEGREE REQUIREMENTS

The program of study leading to the Juris Doctor degree is conducted on a semester basis. Successful completion of 90 hours of law studies and 90 weeks of residence is required. The first-year curriculum is prescribed and consists of studies in Administrative Law and Legislation, Civil Procedure, Contracts, Property and Torts. Thereafter, a varied selection of courses may be elected. In most courses instruction is based on the case method involving the critical study of judicial decisions, statutes and other legal materials.

In addition to the J.D. degree, Marshall-Wythe offers a Master of Law and Taxation degree to those holding a professional degree in law who successfully complete within one school year 24 semester hours of study in specialized and related tax subjects

ADMISSION

Applicants are required to have achieved satisfactory scores on the Law School Admission Text and have earned a baccalaureate degree before enrolling in the Law School. In recent years more emphasis has been accorded the undergraduate gradepoint average than the LSAT scores, although the two factors are balanced. Transcript evaluation by Law School Data Assembly Service is required and the standard evaluation form is utilized. While no deadline for applications has been established, those submitting applications after March preceding the June or September of desired entrance have little chance of being admitted. No specific prelaw curriculum is required. Aside from the standard evaluation form, recommendations are not required and personal interviews will be granted only for good cause.

Candidates for the Master of Law and Taxation program must have earned a professional law degree and have demonstrated a capability for graduate legal studies. Candidates with strong backgrounds in accounting, business or economics are given admission preference for this program.

EXPENSES AND FINANCIAL AID

Tuition and fees for law students are the same as for undergraduates. Total costs for law students, however, will normally exceed undergraduate costs because of the necessity of obtaining off-campus housing and the necessity of purchasing more expensive books.

¹ On leave of absence, 1974-75.

² On leave of absence Fall semester 1974-75.

MARSHALL-WYTHE SCHOOL OF LAW

BULLETIN AND CORRESPONDENCE

Full course descriptions, complete details regarding the Law School and all degree programs are contained in the Bulletin of the Marshall-Wythe School of Law which will be supplied, along with admission forms, upon request. Address all correspondence to: School of Law (Admissions), College of William and Mary, Williamsburg, Va. 23185.

Forms and information pertaining to the Law School Admission Test, the Law School Data Assembly Service, the Law School Financial Assistance Service and the Prelaw Handbook may be obtained by writing to Box 944, Princeton, N.J. 08540.



THE SCHOOL OF MARINE SCIENCE

PROFESSORS HARGIS (Dean of the School of Marine Science), ANDREWS, BLACK, VAN ENGEL, WOOD, and ZEIGLER. ASSOCIATE PROFESSORS BENDER, BIERI, BYRNE, DAVIS, FANG, HAEFNER, HAVEN, KUO, NICHOLS, NORCROSS, PERKINS, WASS, and ZUBKOFF. ASSISTANT PROFESSORS BOESCH, CASTAGNA, DUPUY, GOLDSMITH, GRANT, HOAGMAN, HYER, JORDAN, KAZAMA, LOESCH, LYNCH, MACINTYRE, MERRINER, MUSICK, NEILSON, NOLAN, OTT, ROBERTS, RUZECKI, SILBERHORN, SMITH, WEBB, and WELCH. INSTRUCTORS DEGGES, GORDON, JACOBSON, LANIER, SHEARLS, SMOLEN, WARINNER, WOJCIK and ZWERNER.

FACILITIES

Through the offerings of the School of Marine Science, a joint venture of the College and the Institute, an unusual opportunity is afforded students of Marine Science and Marine Fisheries Biology to take advanced undergraduate and graduate training at an active, year-round center of marine research.

Because its main campus is located at Gloucester Point on the York River, an important estuary with easy access to Chesapeake Bay and the nearby Atlantic, the Institute is admirably situated to conduct research and teaching in marine, estuarine, and freshwater biology and general hydrography. The secondary campus of the Eastern Shore Branch Laboratory at Wachapreague, Virginia, offers access to the embayments, salt marshes, and barrier beaches of Virginia's Eastern Shore.

PROGRAM

The program of the School of Marine Science is primarily intended for the advanced student who wishes to specialize in Marine Science or Oceanography. The degrees offered are the Master of Arts and Doctor of Philosophy in Marine Science. Majors in Biological Oceanography (Marine Biology), General Oceanography and Marine Fisheries Biology are available at both levels. Within these general areas, study in several specialties may be undertaken—for example, Physical Oceanography, Geological Oceanography, Marine Pollution Biology, etc.

Though the courses offered by the School are primarily for graduate students, advanced undergraduates (juniors and seniors) may participate. For instance, Biology, Chemistry and Physics majors may enroll in suitable 400 level courses. An undergraduate major in Chemistry, Geology, Physics, or Psychology may work on a marine problem in his field of specialization. Consent of the Chairman of the student's major

department is required to take problems courses in Marine Science.

In summer qualified undergraduate students may take advanced training in Invertebrate Ecology, Marine Science, Physiology, and other subjects as scheduled. Special summer research courses in Marine Science for qualified science teachers and undergraduate biology majors are offered as funds are available. Financial assistance is generally available to qualified graduate and undergraduate students and to participating teachers.

It is recommended that students who are seriously interested in Marine Science as a profession consult with the Dean of the School as early in their college careers as

possible regarding an academic program to be followed.

DESCRIPTION OF COURSES

401. Introduction to Physical Oceanography. Fall (3) Staff. Prerequisites: Physics 101-102, Math 103.

Physical properties of sea water, descriptive oceanography, air-sea interactions, heat budget, methods and measurements, dynamics of circulation, waves and tides. Lectures and laboratory.

SCHOOL OF MARINE SCIENCE

402. Introduction to Chemical Oceanography. Fall (3) Staff. Prerequisite: Chemistry 101-102.

Chemical properties and their distribution in the sea, nutrients, carbon dioxide system, methods of sea water analysis. Lectures and laboratory.

403. Introduction to Biological Oceanography. Fall (3) Staff.

Introduction to principles and concepts of marine ecology; characteristics of the oceans and estuaries as ecosystems. Occurrence and distribution of marine organisms in relation to hydrography. Lectures, loborotory and field trips.

404. Introduction to Geological Oceanography. Fall (3) Staff.

Topography and sediments of the sea floor and coastal environments. Origin of the Geological processes. Lectures and loboratory.

\$405. Problems in Marine Science. Fall and Spring (1-4) Staff.

Supervised projects selected to suit the needs of the advanced undergraduate student. Projects to be chosen in consultation with the head of the student's major department, the supervising professor and the Dean of the School of Marine Science. Acceptable topic outlines and terminal project reports are required.

‡406. Introduction to Marine Science. Summer session and extension (5) Staff.

A general introduction to marine science including biological, chemical, geological and physical oceanography. Lectures, laboratory and field trips, twenty-six hours per week for five weeks.

*407. Biometry I. Spring (3) Staff.

Application of statistical methods to analysis of biological and physical data. Binomial and chi-square distributions, normal distribution. Student-Fisher test, introduction to analysis of variance and regression analysis. 3 lecture hours.

‡410. Marine and Freshwater Invertebrates. Summer session (5) Staff.

Classification and identification, adaptation, ecology, life histories. Local marine, estuarine and freshwater forms emphasized. Lectures, laboratory and field trips, twenty-six hours per week for five weeks.

‡412. Marine Botany. Summer session (5) Staff.

A general introduction to the ecology and systematics of algae spermatophytes encountered in the marine environment. Lectures, laboratory and field trips, twenty-six hours per week for five weeks.

‡419. Computer Applications in Marine Science. As required (1) Mr. Wojcik.

Course designed primarily for students who require special Fortran programs for analysis of their research data. Following instruction in basics of programming language, each student will develop, with guidance, one or more computer programs pertinent to his or her thesis research. One lecture hour.

\$420. Workshop in Scientific Writing. Spring (1) Mr. Grant.

Step-by-step analysis of the preparation of a journal article; structure and content of research and thesis proposals. One lecture hour.

GRADUATE PROGRAM

The School of Marine Science offers the degrees of Master of Arts and Doctor of Philosophy. For graduate admission and degree requirements, and for a full description of graduate courses in marine science, write for a Graduate Catalog to the Dean of the School of Marine Science, Gloucester Point, Virginia 23062.

SPECIAL PROGRAMS OF THE COLLEGE

THE EVENING COLLEGE

The College initiated a program of evening courses in 1952, to enable residents of Tidewater communities to earn credits which might be applied toward a degree at William and Mary or transferred to other institutions.

The program includes a selection of graduate and undergraduate courses from the regular curricula of the College. Instruction is provided primarily by members of the regular faculty. At present students may earn graduate degrees in Business and Education by attending evening classes.

All students or prospective students may obtain assistance with program planning and related problems by appointment with the Director. Call 229-3000, Extension 238, for an appointment.

THE SUMMER SESSIONS

The Summer Sessions are an integral part of the educational program of the College of William and Mary and the opportunities for study are essentially the same as in the regular session. Courses are carefully selected from the regular curriculum. Instruction is provided by regular members of the William and Mary faculty supplemented by specialists from other institutions.

The Summer Sessions consist of two terms of five weeks each. Students may enroll for either or both terms. Courses in Law are taught on a nine-week schedule. Certain short courses for teachers are also available. Six semester hours constitutes a full course load for each five-week session.

ADMISSIONS

Prospective students who have never attended William and Mary should follow the application and registration procedures outlined in the current Evening College or the Summer Sessions Catalogs. The necessary application forms are included. Since part-time students typically do not maintain a continuous enrollment, all students are requested to submit an application form for each semester or session of Evening College and Summer Sessions which they plan to attend in order to expedite the registration process.

CATALOGS AND INFORMATIONAL MATERIALS

Catalogs which include all course offerings, class schedules and fees for Evening College are published each year in August and January. Copies may be obtained by contacting the Director of Evening College, College of William and Mary, Williamsburg, Virginia 23185.

A preliminary announcement of Summer Session, including a tentative list of course offerings, is published each January followed by a complete Summer Sessions catalog in March which includes all necessary application forms. Special bulletins are available describing the Summer Band School and other special programs. Copies may be obtained from the Director of Summer Sessions, College of William and Mary, Williamsburg, Virginia 23185.

OFFICE OF SPECIAL PROGRAMS

The Office of Special Programs was established by the Board of Visitors in September, 1972 for the purpose of developing and administering a variety of new and existing adult education programs, some of them experimental and innovative. The Office is located at the Virginia Associated Research Campus in Newport News and will serve adults in the Williamsburg-Tidewater area of Virginia. The Office of Special Programs was created to allow the College of William and Mary to be of maximum public service by offering varied and expanding educational opportunities and experiences to those who seek education yet are unable to devote themselves to full-time or residential programs. A primary function will be to coordinate noncredit short courses, seminars, institutes and conferences at the Virginia Associated Research Campus in Newport News as well as those scheduled on the Williamsburg campus.

The broad range of subject matter offered at the College provides resources for offering non-credit courses in many fields to increasing numbers of people who seek individual self-development, improvement of professional competence, or intellectual experiences in areas of personal interest and appeal. The length and starting time of the programs are not limited by traditional College time frames and may, therefore, be scheduled for the convenience of the participants in the evenings, on weekends,

during the summer or regular academic session.

The diverse professional resources of the College will be applied through courses, conferences, institutes and workshops to professional groups, both public and private, as well as the general public. In cooperation with other area institutions, the resources of the College will be utilized to satisfy society's needs in an effective and coordinated manner. The College will concentrate on those programs in which the academic resources and experience of its undergraduate, graduate and professional schools and faculties can make effective contributions.

The interests and needs of the public will be carefully researched and will constitute the basis for establishing the programs to be offered. Certificates will be issued to participants who satisfactorily complete the programs and Continuing Education Units may be awarded for courses which qualify under the standards established by the Southern Association of Colleges and Schools and the State Council on Higher

Education in Virginia.

Information concerning the programs will be widely distributed to the general public as well as business and professional groups through the news media and by special bulletins and brochures.

Prospective participants may obtain information and assistance by contacting the Office of Special Programs, College of William and Mary, Virginia Associated Research Campus 12070 Jefferson Avenue, Newport News, Virginia 23606 or by calling 877-9231, extension 201.

THE VIRGINIA ASSOCIATED RESEARCH CAMPUS

THE VIRGINIA ASSOCIATED RESEARCH CAMPUS of the College of William and Mary is a graduate education and research facility located in Newport News approximately twenty-five miles from the College's main campus in Williamsburg.

Advanced courses in Applied Science, Business Administration, Education, and Engineering are routinely offered at the Research Campus, all of which carry resident graduate credit. The program in Engineering is offered by Old Dominion University:

all other programs by the College of William and Mary.

Inquiries and requests for bulletins and application forms should be directed as follows: for Applied Science to Director, Applied Science Program; for Business Administration to Associate Dean for Graduate Studies, School of Business Administration to Associate Dean for Graduate Studies, School of Business Administration to Associate Dean for Graduate Studies, School of Business Administration to Associate Dean for Graduate Studies, School of Business Administration to Associate Dean for Graduate Studies, School of Business Administration to Associate Dean for Graduate Studies, School of Business Administration to Associate Dean for Graduate Studies, School of Business Administration to Associate Dean for Graduate Studies, School of Business Administration to Associate Dean for Graduate Studies, School of Business Administration to Associate Dean for Graduate Studies, School of Business Administration to Associate Dean for Graduate Studies, School of Business Administration to Associate Dean for Graduate Studies, School of Business Administration to Associate Dean for Graduate Studies, School of Business Administration to Associate Dean for Graduate Studies, School of Business Administration to Associate Dean for Graduate Studies, School of Business Administration to Associate Dean for Graduate Studies and School of Business Administration to Associate Dean for Graduate Studies and School of Business Administration to Associate Dean for Graduate Studies and School of Business Administration to Associate Dean for Graduate Studies and School of Business Administration to Associate Dean for Graduate Studies and School of Business Administration to Associate Dean for Graduate Studies Administrati

SPECIAL PROGRAMS OF THE COLLEGE

tion; and for Education to Director of Groduate Studies, School of Education—all at the College of William and Mary, Williamsburg, Virginia 23185. Inquiries regarding the Engineering Program should be addressed to Assistant Dean, School of Engineering, Old Dominion University—VARC Campus, Newport News, Virginia 23606.

Research programs in several disciplines are being conducted at the Research Campus. Facilities available for research include a 4 MeV Van de Graaff accelerator. The College cooperates with institutions of higher education throughout Virginia in providing office and laboratory space, laboratory animal facilities, and electronic and machine shop assistance at the site for studies being conducted at the adjacent Space Radiation Effects Laboratory.

PRE-PROFESSIONAL PROGRAMS

Dentistry, Engineering, Forestry, Medical Technology, Medicine, and Veterinary Medicine

Students may follow programs at William and Mary within a liberal arts framework which will prepare them for study in Dentistry, Engineering, Forestry, Medical Technology, Medicine, and Veterinary Medicine. The pre-professional programs in Engineering and Forestry are prescribed because of cooperative programs with other institutions. Students who are interested in other pre-professional programs in Dentistry, Medical Technology, Medicine, and Veterinary Medicine, should plan their programs in consultation with their advisor.

PREMEDICAL AND PREDENTAL PROGRAMS

There are no specific premedical or predental programs. Students preparing themselves for admission to medical or dental school may choose to concentrate in any department. Although medical schools in general have no preference as to major field of undergraduate study, they do believe that the student should pursue a coherent program with some depth.

A liberal education is appropriate to preparation for a career in medicine. The physician should be able to use and to understand both the written and spoken language. Moreover, those who have cultivated an interest in philosophy, history, and the arts can enrich their own lives and, in so doing, may become more effective members of their communities.

For the country at large most medical school graduates now earn their baccalaureate degree; some of these students spend only three years in the liberal arts college and receive the college degree after completing the first year in medical school or, as in the case of William and Mary, upon the completion of the medical course. Certain schools now have combined liberal arts-medical programs wherein the students spend only two years in the liberal arts college.

The foundation of medicine is the natural sciences. All medical schools include in their admission requirements four laboratory science courses: biology, inorganic chemistry, organic chemistry and general physics. The calculus is rapidly assuming the same importance. At William and Mary, the above courses are Biology 101-102, Chemistry 103-104, Chemistry 203-204, Physics 101-102 or Physics 103-104 and Mathematics 211-212. Science courses in addition to these minimal requirements are required by some medical schools and viewed with favor by many others. In any case,

the student's choice of courses should be balanced and should reflect his overall in-

tellectual development.

The premedical advisors at William and Mary encourage students to complete four years before going to medical school, for a liberal arts program reaches its full meaning in the final years; to terminate such a program after three years is to lose its unique significance. Future success in medical school and in medical practice depends in great measure on the competence and attitudes developed during the liberal arts program.

Since medical schools begin to reach decisions on applicants for admission early in the senior year on the basis of records established at that time, it is advantageous that the minimal required science courses be completed in the first three years. Every premedical student is encouraged to seek academic guidance early in his career through

scheduled consultations with a premedical advisor.

COMBINED PLANS WITH ENGINEERING SCHOOLS

"Broadly defined, engineering is the combination of art and science that makes materials and power useful to mankind." In this definition the emphasis on service to man points to the importance of the liberal arts in the education of modern engineers. This is of particular importance to those engineers who will rise to positions of decision-making and large-scale problem solving. As technological alternatives to the problems affecting our lives occur at an increasing rate, so decisions will draw on a greater understanding of moral values, individual worth and human needs. This will require the broadest possible combination of those studies properly termed the liberal arts and sciences with those that give a mastery of technology.

Engineering schools are increasingly aware of this truth and are searching for students with the appropriate background from liberal arts colleges. More specifically, William and Mary has a loose cooperation with the Engineering Schools of Columbia University, The Johns Hopkins University and Rensselaer Polytechnic Institute. The cooperative programs are called "Combined Plans" and take two forms: The 3-2 plan leads, after three years at William and Mary and two years at the Engineering School to a bachelor's degree from both institutions. The 4-2 plan leads, after four years at William and Mary and two years at the Engineering School, to a bachelor's degree from William and Mary and a Master's Degree in Engineering.

For details of these plans the student should consult the liaison officer for Combined Plans, Professor Hans C. von Baeyer, Chairman of the Physics Department.

Preparation for Forestry

Students may prepare at William and Mary for entrance into forestry schools at other institutions. Here they obtain a sound education in the humanities and other

liberal arts in addition to the sciences basic to forestry.

The College offers a special program in cooperation with the School of Forestry of Duke University. Upon completion of a five-year coordinated course of study the student will have earned the Bachelor of Science degree from William and Mary and the professional degree of Master of Forestry from Duke University. The student devotes the last two years of his program to the professional forestry curriculum of his choice at Duke, where forestry courses are open only to seniors and to graduate students.

Admission to the College is granted under the same conditions as for other curricula. At the end of the first semester of the third year the College will recommend qualified students for admission to the Duke School of Forestry. Each recommendation will be accompanied by the student's application for admission and by transcript of his academic record at William and Mary. No application need be made to the School of Forestry prior to this time.

Pre-Forestry Curriculum at William and Mary.

PRE-PROFESSIONAL PROGRAMS

FIRST YEAR

	1st Sem.	2nd Sem.
Eng. 203-204 Classical or Modern Foreign Language (If Required) Biol. 101, 102 Math. 103, 111 or 111, 112 Phys. Ed. 101, 102 Electives	3 3-4 4 3 1 3 14-18	$ \begin{array}{r} 3 \\ 3-4 \\ 4 \\ 3 \\ 1 \\ \hline 3 \\ \hline 14-18 \end{array} $
SECOND YEAR		
	1st Sem.	2nd Sem.
Govt. 201, 202 Chem. 103, 104 Biol. 302; Biol. 206 or Biol. 412 Phys. Ed. 201, 202 Electives	$ \begin{array}{r} 3 \\ 4 \\ 4 \\ \hline 1 \\ 3-6 \\ \hline 15-18 \end{array} $	$ \begin{array}{r} 3 \\ 4 \\ 4 \\ 1 \\ \hline 3-6 \\ \hline 15-18 \end{array} $
THIRD YEAR		
	1st Sem.	2nd Sem.
Econ. 101, 102 Biol. 301 or Elective Biology Biol. 419 Physics 101-102 *Electives	$ \begin{array}{r} 3 \\ 4 \\ -4 \\ 4-6 \\ \hline 15-17 \end{array} $	3

^{*} Must include two courses which satisfy sequence requirements.

V. ORGANIZATIONS OF THE COLLEGE

INSTITUTE OF EARLY AMERICAN HISTORY AND CULTURE

THE INSTITUTE of Early American History and Culture was established in 1943 by the union of certain historical research and publication activities of the College of William and Mary and The Colonial Williamsburg Foundation. The College contributed The William and Mary Quarterly, a historical periodical published since 1892, and the use of the rich resources of its library, while Colonial Williamsburg contributed the Williamsburg Restoration Historical Studies, its program of research fellowships, and the use of its important manuscript collections. The hoard of editors of the Quarterly and the Restoration's advisory council of historians were merged to form the Council of the Institute, an advisory board drawn from the nation at large.

By promoting the study of early American history the Institute aims, in the words of its Constitution, "to preserve and advance understanding of the enduring contributions of the colonists and the founders of the Republic." It does so by the publication of significant books and articles in the field of early American history from the beginnings through the Jeffersonian era, by teaching and consultation, and by the acquisition of research materials on microfilm. Its collection of early American newspapers on film is one of the largest extant. Its publication of the Virginia Gazette Index (1950) provides the only comprehensive index to a series of important colonial newspapers

so far made available to researchers.

The Institute cooperates in many ways and to the fullest possible extent with historical activities of both the College and Colonial Williamsburg, but it is an autonomous organization with a separate and distinct program which is national rather than local. Its books and the articles appearing in *The William and Mary Quarterly* are directed to the widest possible audience. Other Institute activities include a program of post-doctoral fellowships in early American studies that attract outstanding young scholars to the campus for a two-year period of research and teaching; the sponsorship, often in cooperation with other scholarly organizations, of conferences and symposia; and the presentation of an annual manuscript prize, the Jamestown Award, sponsored by the Institute, the Jamestown Foundation, and the University of North Carolina Press.

The Institute is also at present a cosponsor of two major special projects. Under grants from the National Historical Publications Commission and the National Endowment for the Humanities and an appropriation from the General Assembly of Virginia, supplemented by funds from private sources, the Institute and the College jointly sponsor The Papers of John Marshall, a definitive edition of the works of the Chief Justice. The Atlas of Early American History is a cooperative project on the part of the Institute and the Newberry Library, Chicago, Illinois, with its offices in the latter institution.

The offices of the Institute and of *The William and Mary Quarterly* are in the Earl Gregg Swen Library on the College campus. The postal address is Box 220, Williamsburg, Virginia 23185.

The sponsors of the Institute are Thomas A. Graves, Jr., President of the College of William and Mary, and Carlisle H. Humelsine, President of The Colonial Williams-

burg Foundation.

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INSTITUTE OF EARLY AMERICAN HISTORY AND CULTURE

STAFF OF THE INSTITUTE OF EARLY AMERICAN HISTORY AND CULTURE

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Norman S. Fiering, Editor of Publications
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Herbert A. Johnson, Editor of The Papers of John Marshall
Charles T. Cullen, Co-Editor of The Papers of John Marshall



THE MARSHALL-WYTHE INSTITUTE FOR RESEARCH IN THE SOCIAL SCIENCES

The Marshall-Wythe Institute for Research in the Social Sciences serves to develop and coordinate research among the Social Sciences and between social scientist and the faculty of other disciplines. Services provided by the Institute include 1) the Virginia Election Data Bank which contains state, city and county and precinct data on Virginia elections dating from 1892, 2) census data tapes and other government data sources not available in Swem Library, and 3) enrollment in the Roper Data Service.

In addition to its role as a research organization, the Institute conducts the Marshall-Wythe Symposium, arranges lectures on current topics relating to the Social Sciences, and promotes the exchange of information and expertise between the College and the community. In 1926, through the generosity of James Goold Cutler, Rochester, New York, a fund was established, the income to be applied toward a lecture series. This series has developed into the Marshall-Wythe Symposium which carries one semester hour of credit. The Symposium is generally conducted during the Spring semester and a student may, in successive terms, receive a maximum of two credits.

The Institute consists of a Director, Clyde A. Haulman, Associate Professor of Economics, and representatives from the Departments of Economics, Government, History, Sociology, Anthropology, the School of Business Administration, and the Marshall-Wythe School of Law.



THE SOCIETY OF THE ALUMNI

The Society of the Alumni of the College of William and Mary in Virginia was founded in 1842 and incorporated on March 17, 1923. Its purpose is to organize the alumni of the College of William and Mary in one general body, in order to keep alive the memories of college life and promote the welfare of the College. Any graduate or any alumnus who has completed one regular college semester at the College in Williamsburg is eligible for membership in the Society. Contributors to The William and Mary Fund are accorded all membership privileges. The Alumni Gazette, the official publication of the Society, is sent to all known living alumni and parents of current students.

Alumni chapters are located in many major cities and areas of alumni concentrations. The Society over the years has supported the scholarly activities of the College through the Alumni Summer Research Grants, and the Alumni Fellows designations to outstanding younger faculty members.

The officers of the Society are Colin R. Davis, '50, President; Glen Edward McCaskey, '63, Vice President; Jean Miller Canoles (Bruce), '49, Secretary-Treasurer;

Gordon Cheeseman Vliet, '54, Executive Vice President.

The members of the Board of Directors of the Society are:

To December 1974—Dan Hutcheson Edmonson, '38, Glen Ellyn, Illinois; Jane Harden (Hanson), '42, Potomac, Maryland; Glen Edward McCaskey, '63, Hilton Head Island, South Carolina; John Flood Morton, Jr., '58, Metairie, Louisiana; William Lunsford Person, '24, Williamsburg, Virginia.

To December 1975—Jean Miller Canoles (Bruce), '49, Norfolk, Virginia; Colin R. Davis, '50, Suffolk, Virginia; Fred Leon Frechette, '46, Richmond, Virginia; John William Hornsby, Jr., '50, Newport News, Virginia: Harriet Nachman (Storm), '64, Ham-

pton, Virginia.

To December 1976—Harold M. Bates, '52, Roanoke, Virginia; Marjorie Jean Retzke (Gibbs), '44, Bay Village, Ohio; Elaine Elias (Kappel), '55, Pittsburgh, Pennsylvania; Raymond T. Waller, '40, Richmond, Virginia; Hillsman V. Wilson, '51, Lutherville-Timonium, Maryland.

The members of the Alumni Board of Trustees of the Alumni Endowment of the College of William and Mary are: Fred Monroe Flanary, '50, Williamsburg, Virginia: Robert Stanley Hornsby, '41, Williamsburg, Virginia; Edward Nelson Islin, '25, Newport News, Virginia; Jay Wilfred Lambert, '27, Williamsburg, Virginia; ex officio the President of the Society of the Alumni.

The Alumni House on Richmond Road at the stadium houses the offices of the Society, the Paschall Library, and spacious reception rooms.

THE ASSOCIATION OF PARENTS

The objectives of the Association are to promote a better understanding of the mission, goals, and policies of William and Mary; to interpret to parents and others the benefits of the liberal and professional education offered by the College; to aid in the placement programs of William and Mary so as to expand career opportunities for graduating students; and to promote the development of the College by assisting it to increase its private financial support from individuals, corporations, and foundations.

The membership of the Association includes all parents of enrolled students and those parents of former students who continue to contribute to the Association's Parents' Fund. The Steering Committee of the Association is composed of a minimum of seventeen persons who are parents or guardians of enrolled and recently enrolled

students.

The Steering Committee of the Association meets at least once annually to choose officers and plan activities for the academic year. Activities generally include a Parents' Day and an annual solicitation of financial support from among all parents.

More information on the Association of Parents is available through the Office of the Associate Dean of Students for Administration at the College of William and Mary in Virginia.

VI. Miscellaneous Information

ENROLLMENT

Session 1973-74

	Men W	/omen	Total
Freshmen	549	550	1099
Sophomores	570	599	1169
Juniors	462	438	900
Seniors	430	394	824
Law School	394	63	457
Graduate	297	139	436
Advanced Graduate	121	9	130
Auditors	3	13	16
	2826	2205	5031

GEOGRAPHICAL DISTRIBUTION OF STUDENTS

Session 1973-74

Alabama	5
Arizona	1
Arkansas	5
California	22
Colorado	3
Connecticut	53
Delaware	27
District of Columbia	10
Florida	44
Georgia	19
Hawaii	3
Idaho	1
Illinois	30
Indiana	14
Iowa	9
Kansas	6
Kentucky	15
Louisiana	3
Maine	6
Maryland	147
Massachusetts	36
Michigan	19
Minnesota	5
Mississippi	2 «
Missouri	5
Montana	1
Nebraska	1
New Hampshire	6

GEOGRAPHICAL DISTRIBUTION OF STUDENTS

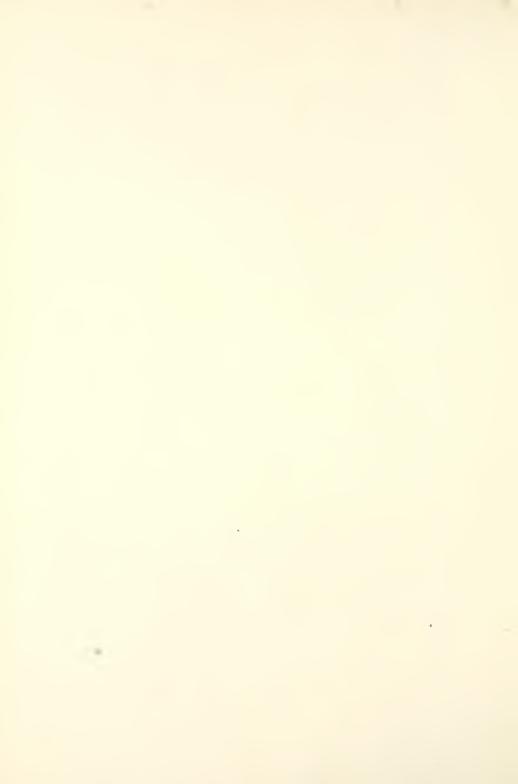
New Jersey	
New Mexico	
New York	
North Carolina	
North Dakota	
Ohio	
Oklahoma	
Oregon	
Pennsylvania	
Rhode Island	
South Carolina	
South Dakota	
Tennessee	
Texas	
Utah	
Vermont	
Virginia	
Washington	6
West Virginia	
Wisconsin	
Australia	
Bahamas	
Belgium	
Bermuda	
China	
Greece	
Iran	
Kenya	
Lebanon	
Malaysia	1
Mexico	
Netherlands	
Nigeria	2
Panama Canal Zone	4
Puerto Rico	
South Korea	3
South Viet Nam	
Switzerland	
Taiwan	
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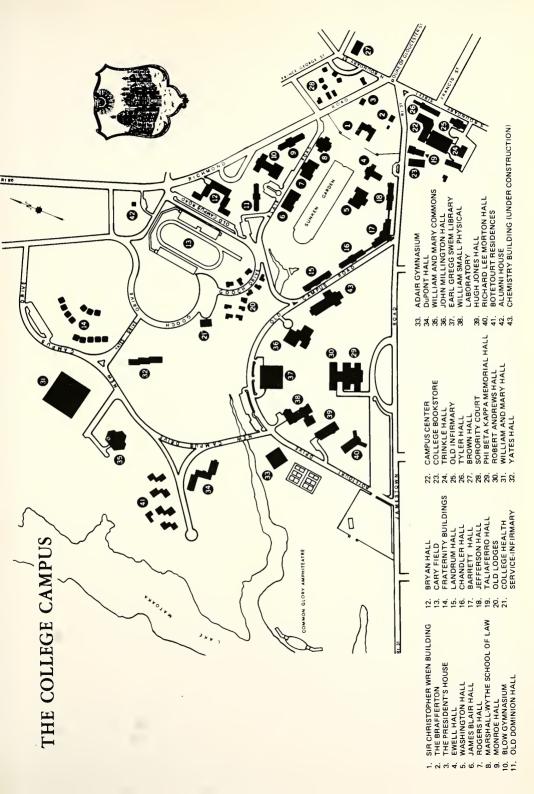
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